THE HAPPINESS IN PENANG (HIP) INDEX 2020/2021

Final Report

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Executive Summary

Background to the Happiness in Penang (HIP) Index

A country's progress is more often than not determined through the pace of its economic development. The metrics of the Gross Domestic Product (GDP) and the Gross National Product (GNP) are important for indicating economic progress. However, these metrics are inadequate when it comes to measuring the country's overall well-being and social development. Studies have found that an increase in income, GDP and GNP does not necessarily translate into an increase in happiness for that society.

As such, the measurement of life satisfaction and happiness as an indicator of development has in recent years gained prominence, with happiness economics being acknowledged as a branch of economics. As an overall objective, happiness economics endeavours to supplement and complement the financial and monetary measures of welfare with other factors that affect general well-being, giving particular attention to happiness and life satisfaction. The evaluation of happiness, well-being and life satisfaction highlights the pace of social progress and also complements and contributes to the pace of economic development and to a country's overall well-being.

As it is, attempts at sustainable development require an inclusive approach that gives equal importance to multi-factored aspects of well-being.

In formulating the Happiness in Penang (HIP) Index, thorough research of existing happiness surveys and research studies were first undertaken, with careful consideration being given to the framework of Bhutan's Gross National Happiness (GNH) as well as the structure of the World Happiness Report (WHR).

The HIP Index is multidimensional, and takes into consideration the life satisfaction and happiness levels of Penangites across different domains and various aspects of life. It aims to supplement policy-making by the state government by providing understanding of the intricacies of life satisfaction among Penangites. The domains are Freedom and Governance; Economic Well-being, Environmental Sustainability, and; Liveability and Social Well-being.

Two methods were used to conduct the Happiness Survey. First, an online survey was conducted between September 2020 and October 2020. This was then complemented with face-to-face interviews in April 2021. The study covered 3,011 respondents across the five districts of Penang, further stratified by gender, age and ethnicity, where the number is statistically representative of the total population in Penang. Given the limitations created by the Covid-19 pandemic and the movement restriction orders, extra efforts had to be taken to achieve the most equal representation. The responses in the survey were then collated, analysed and used as the basis for the HIP Index.
Result Summary

The sentiments of the respondents towards the domain of Freedom and Governance trend towards neutrality in general. While a high percentage of Penangites are satisfied with religious/cultural/spiritual freedom, Governance receives a significant percentage of dissatisfied responses. Significantly, respondents are more satisfied with the state government’s performance than with the federal government’s performance. The domain of Economic Well-being sees considerably high satisfaction levels where social and economic mobility and household expenditure are concerned. Conversely, satisfaction with financial security is at considerably lower levels.

Where the domain of Environmental Sustainability is concerned, government policies to protect the environment have been well-received. Awareness of environmental issues is also prevalent, with river pollution and air pollution being the main issues of concern. Additionally, overall levels of satisfaction are higher in the domain of Liveability and Social Well-being, with most indicators achieving a strong level of satisfaction, among them housing, family relationships, and culture and heritage. On the other hand, cleanliness and urban connectivity record high levels of dissatisfaction. Despite some respondents being of the opinion that their state of life was better before the pandemic, more than half professed themselves to be at an at least good stage of life.

Constructing the Happiness in Penang (HIP) Index

The Alkire-Foster methodology is used to calculate the HIP Index, where each person’s achievement of happiness is measured according to each indicator. The HIP Index maintains that a person does not need to achieve sufficiency across all indicators within each domain to be determined as happy. As such, three cut-off points are utilised to measure the degrees of happiness.

Those who are considered unhappy would have achieved less than 50% sufficiency across the weighted indicators. Subsequently, those who observed sufficiency in 50% to 65% of the indicators are seen as narrowly happy. Finally, an achievement of sufficiency in 66% or more of the weighted indicators is considered as happy.

Interpreting the HIP Index

The HIP Index value is estimated at 0.881. This value indicates that about 76.5% of Penangites are considered happy, whereas the remainder of approximately 23.5% of Penangites are identified as not-yet-happy. However, the analysis also shows that on average, the not-yet-happy people are still able to enjoy sufficiency in 49.6% of the weighted indicators. The not-yet-happy people are further divided into classifications of narrowly happy and unhappy, which stand at 13.7% and 10% respectively.

More specifically, about 78.2% of the people in Penang are happy in the domain of Freedom and Governance while 8.6% are narrowly happy and 13.2% are unhappy. This domain also sees the highest percentage of unhappy people. Penangites are slightly happier when it comes to the
The domain of Economic Well-being, with 79.1% observed as happy. For the proportion of not-yet-happy in the aforementioned domain, 11.5% are identified as narrowly happy while the percentage of unhappy people stands at 9.4%.

The domain of Environmental Sustainability records comparable percentages of happy people, with 76.1% of the respondents regarded as happy. Following that, the percentage of unhappy people for this domain are calculated as 14.6%, and 9.3% are seen to be unhappy. The highest percentage of happy people across domains is held by the domain of Liveability and Social Well-being, where 79.3% of the people considered themselves happy. Conversely, narrowly happy people for this domain stand at 7.7% of total respondents while 13% identify themselves as unhappy.

**Applying the HIP Index**

The HIP Index illustrates the happiness levels of Penangites and their corresponding sufficiencies across the four domains and their various indicators, and provides a comprehensive overview of happiness in Penang as it stands. The Index intends to act as a policy tool for the government, its policy-makers as well as researchers, such that the happiness and life satisfaction of the people will become one of the key considerations in policy design and formulation.

Besides the government, the HIP Index can also be utilised by the community, the civil society, households and individuals as the whole of society holds the joint responsibility of increasing happiness. Government policies, meaningful community actions and the realisation as well as execution of individual responsibilities are concrete ways to elevate the HIP Index. At the same time, cohesive partnerships are needed when it comes to executing collective action plans.
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1.0 Introduction

The pace of economic development is often seen as the main measurement of a country’s progress. The metrics of the Gross Domestic Product (GDP) and the Gross National Product (GNP) are certainly important and influential when it comes to policy-making and decision-making processes as they are reliable and important indicators of a country’s economic development. However, the limitation remains that these metrics are only able to measure growth in monetary terms; they are undeniably limited when it comes to evaluating the happiness and well-being of the people and the country’s overall social progress.

Increases in household income and household consumption indicate improvements to the living conditions of a country’s population, particularly for the poor, for whom small increases in income often translate to higher satisfaction. As the poor are typically more deprived of access to health, education, employment and security, the rise of their income represents an improvement to the corresponding life conditions and presumably an increase in life satisfaction (Helliwell et al., 2012).

The idea that economic growth does not necessarily lead to increasing national happiness was first mooted by Easterlin (1974). Using income as the primary utility function, Easterlin found that the levels of happiness during the US economic boom had remained largely unchanged despite significant increases in wealth and income. The same was also observed in Japan and a number of developed European countries. Similarly in the UK, steady economic growth between 2013 and 2015 did not translate to increasing happiness. In contrast, there was a significant dip in the happiness/thriving levels, which led to the Brexit vote (Clifton, 2017). This clearly shows that positive economic growth does not always indicate positive growth in happiness and satisfaction.

The perpetuation of income inequality is, of course, not the sole reason for unhappiness as it is found that this does not significantly affect those with high income (Oishi et al., 2011). However, income inequality can and will lead to higher social inequalities and divides (Di Tella & MacCulloch, 2006). This may eventuate in the decline of social trust and the erosion of confidence in governments, resulting in decreasing happiness and life satisfaction (Helliwell et al., 2012). As it is, there are many factors to consider when it comes to assessing well-being in development.

Therefore, the measurement of life satisfaction and happiness has since steadily gained importance as an indicator of development, with happiness economics being acknowledged as a branch of economics. As an overall objective, the branch of happiness economics endeavours to supplement and complement the financial and monetary measures of welfare with other factors that affect general well-being, such as health, civic trust, employment status, social interaction and so on (Graham, 2005). In this sense, some economists have typically focused their modelling on questions revolving around three main aspects: happiness, life satisfaction and psychological health (Blanchflower, 2008), in conjunction with the aforementioned economic and social indicators.
What is happiness?

It is also important to note that happiness, in itself, is a subjective concept. A dictionary defines happiness as "a state of well-being and contentment" and/or "a pleasurable and satisfying experience" (Merriam-Webster, 2021). Psychologists have defined happiness to be the maximisation of pleasurable emotions and the minimisation of unwanted emotions (Kahneman, Diener, & Schwarz, cited in Tamir et al. 2017).

As a concept, happiness is generally associated with better quality of life, greater life satisfaction, and an elevated state of well-being. Logically, it can be assumed that a person who experiences a higher incidence and intensity of positive emotions is happier compared to those with a lower frequency of said emotions. At the same time, what constitutes positive or negative emotions will differ across different individuals in relation to their cultures and interpretations of situations. As an example, intense and stimulating emotions rate highly for Americans when it comes to identifying positive emotions, but less so for East Asians (Tsai, Knutson, & Fung, 2006, cited in Tamir et al., 2017). An individual can be deemed to be happier when the emotions encountered are consistent with their core values and needs. Diener and colleagues (2002) also argue that the length of time in which a person reports their positive emotions is an important predictor of happiness.

In combining several concepts, Hills and Argyle (2001, cited in Bekhet, 2008) define happiness as a multidimensional construct where emotional and cognitive elements are given equal importance. These elements revolve around the three main components of frequent positive feelings akin to joy, the lack of negative feelings and a substantially high average level of satisfaction over a specific time period.

Therefore, when studying the different scholastic interpretations of happiness, one can conclude that empirically, there is no one universal measurement and/or method to strictly define and quantify happiness. At the same time, it is also important to understand how the evaluation of happiness, life satisfaction and well-being highlights the pace of social progress, in addition to complementing as well as contributing to the metrics of economic advancement to inclusively measure a country’s overall development.

There is a need for more progressive and balanced estimates of social development to be included in the analysis of a country’s advancement. Sustainable development should, after all, take a holistic approach towards notions of progress and give equal importance to non-economic aspects of well-being.

1.1 The Happiness in Penang (HIP) Index

In building the Happiness in Penang (HIP) Index, existing frameworks and the research of various happiness studies and surveys are taken into consideration.

The World Values Survey (WVS) is one of the earliest surveys to provide cross-country and time-series data on changing values and self-reported life satisfaction. The WVS data were collected from a series of representative national surveys covering 120 countries which represents 94.5% of the world’s total population. Commencing every five years since 1981, the survey also studies the impact of changing values, beliefs and norms in social, economic, political, religious and
cultural life over time. Results from the WVS also demonstrate that people’s beliefs are integral to socioeconomic development and effective governance.

In determining the level of happiness, respondents to the WVS survey are asked to contemplate their life state by evaluating their happiness in accordance to all facets of their lives (the question asked: taking all things together, would you say you are (i) very happy, (ii) rather happy, (iii) not very happy or (iv) not at all happy) (Helliwell et al., 2012). This response is then measured against previous answers to gauge happiness and satisfaction according to different areas and indicators. With this, the WVS is used to form hypotheses on the linkages between happiness and the surveyed areas of health, education, security and so on (World Values Survey, 2021).

Another relevant project, the European Values Study (EVS), is a longitudinal research programme that conducts large-scale, cross-national surveys among European nations once every nine years. It aims to collect insights on beliefs, values and attitudes in relation to different aspects of life, family, work, religion, politics, and society (European Values Study, 2021a). The data collected are used to analyse value changes in European society, its consequences and dynamics. Well-being and happiness are major components in the EVS where happiness, life and well-being are theorised to be positively related to the locus of control (European Values Study, 2021b). Recently, WVS and EVS combined their data sets from 2017 to 2020 to present one joint core data set.

The European Social Survey (ESS), established in 2001, is a cross-national survey similar to the WVS. It is mostly academically driven and primarily designed as a time series that is conducted widely across Europe to monitor and evaluate changing attitudes and values in the continent. Given the existence of diverse populations in the region, the survey largely aims to measure the well-being, attitudes, beliefs and behaviour patterns of populations in more than 30 European nations (European Social Survey, 2021).

Two questions are explicitly used to measure life satisfaction and happiness in the ESS (Caporale, 2007). The evaluation for life satisfaction uses the Cantril Ladder, with 0 being extremely dissatisfied and 10 being extremely satisfied, with regards to life satisfaction as a whole at present day. The utilisation of the Cantril Ladder also applies to the measurement of happiness given all current circumstances, with 0 representing extremely unhappy and 10 being extremely happy. These measurements are further analysed alongside other variables and indicators in the ESS to provide further insights to the overall life satisfaction of the respondent.

The Gallup World Poll conducts nationally-representative well-being surveys in more than 150 countries, which represents more than 98% of the world’s population. It covers several indices in its world polls, with the Life Evaluation Index being the main source of happiness and well-being data. The Life Evaluation Index asks the respondents to rate their life on a Cantril Ladder, with 10 being the best possible life and 0 being the worst possible life. Subsequently, they are then asked to gauge where they expect their lives to be in five years’ time. The emotional well-being aspect takes into consideration the day-to-day frequency of positive and negative feelings. The findings and data from the Gallup World Poll are extensively used in happiness research, most particularly in the United Nations Sustainable Development Solutions Network’s World Happiness Report (further discussed below).

In terms of a core index, the Gross National Well-being (GNW) Index, developed in 2005 by Med Jones, was regarded as one of the earliest indices constructed to measure economics and happiness (Jones, 2005). His work suggested the measuring of a country’s socioeconomic well-
being from seven developmental areas: mental, physical, workplace, social, economic, environmental and political, where mostly qualitative data were collected via the GNW survey. The intention is to create a happiness and life satisfaction metric, which will be incorporated into the corresponding policy frameworks for socioeconomic development.

When it comes to using happiness as a core concept in formulating and deciding national policies, the Bhutanese government is regarded as one of the pioneers. In Bhutan, the Gross National Happiness (GNH) which was first introduced by the 4\textsuperscript{th} King of Bhutan, King Jigme Singye Wangchuck in 1972 (Ura et al., 2012), has been a prevailing concept for its national policies. In proclaiming the Gross National Happiness to be more important than the gross national product, His Majesty cited the 1729 legal code of Bhutan which stated “if the government cannot create happiness for its people, there is no purpose for the government to exist”.

The work to construct Bhutan’s GNH Index was first undertaken in 2007; it was subsequently further developed and finalised in 2008, making Bhutan one of the first countries to use the measurement of happiness as an important component in the formation of national development policies (Ura et al, 2012). GNH prioritises a holistic approach towards socioeconomic progress and states that equal importance must be given to the non-economic and non-financial aspects of well-being (Ura et al., 2012). Unlike the GNW, which disregards religion/religiosity and is secular in nature, GNH places importance on spiritual development. Material development and spiritual development are complementary and should work to reinforce each other in striving towards the most beneficial pathway of development for a country and its people.

The main framework of the GNH consists of four primary pillars: Sustainable and Equitable Socio-economic Development, Environmental Conservation, the Preservation and Promotion of Culture as well as Good Governance (Ura et al., 2012). Nine dimensions are then identified among the pillars, namely living standards, education, health, environment, community vitality, time use, psychological well-being, good governance and cultural resilience and promotion. In accordance with these nine domains, 33 indicators are developed to define and analyse the happiness of the Bhutanese people. The GNH survey is designed to collect quantitative and qualitative data, with both subjective and objective indicators. The survey then forms the basis for the building of the GNH index.

The GNH index functions as a multidimensional tool that has since been deemed necessary for the Bhutanese government when it comes to policy-making decisions and the creation of policy incentives. The GNH not only measures the happiness and well-being of the Bhutanese, but also tracks their progress over time and across the country via different dzongkhags (districts). In essence, the GNH is then utilised as an alternative framework for development, whereby indicators from the GNH can be provided to the relevant ministries and sectors to guide development and ensure that resources are allocated efficiently and optimally (Ura et al., 2012).

Globally, the United Nations Sustainable Development Solutions Network’s World Happiness Report (WHR) is regarded as the landmark report for global happiness (Helliwell et al., 2012). It primarily contains the rankings of global happiness in relation to countries, and also delves extensively into the individual components and variables of happiness, where different themes are given an emphasis in different editions of the reports.\footnote{For example, the 2013 and 2014 WHR placed an emphasis on subjective well-being and mental health, and the 2019 WHR had a focus on voting behaviour and pro-social behaviour in relation to happiness.} The WHR proposed that the four pillars...
of sustainable development – ending extreme poverty, environmental sustainability, social inclusion and good governance – should form the basis and design of happiness research and data collection (Helliwell et al., 2012). Till date, there are nine reports available, with the inaugural report published in 2012 and the latest report released in 2021, where the latter takes into account the impact of the Covid-19 pandemic on happiness and well-being.²

The formation of WHR’s country rankings in happiness considers life satisfaction data from the WVS, ESS, EVS and the Gallup World Poll,³ where Gallup’s Life Evaluation Index was the focal point of analysis (Helliwell et al., 2012). The latest report, however, only utilises the Gallup World Poll as its principal source of data (Helliwell et al., 2021).

The exploration of happiness in WHR is mainly based on six main variables: income, freedom, trust in government, healthy life expectancy, social support from family and friends, and generosity (McGroarty, 2021). Countries that score highly on these variables are perceived to be happier. In the most recent 2021 World Happiness Report, Malaysia ranked 81st out of 153 countries, a small improvement from the previous year’s ranking of 82nd (Helliwell et al, 2021).

In recent years, in emulating Bhutan and with reference to the WHR, other countries have also developed their own indices to track and measure happiness and well-being, using its parameters in crafting and deciding national policies. In Malaysia, the Department of Statistics developed the Malaysian Well-being Index in 2018, with two editions of reports released thus far. While the report does not explicitly measure the level of happiness, it stands as an overview of people’s overall well-being from economic and social aspects. As it is, happiness goes beyond economic stability and satisfaction, and depends also on other factors such as social relationships (family and community), quality of life, religious and cultural diversity, freedom, natural environment and so on.

The HIP Index takes into consideration the happiness and life satisfaction of Penangites across different domains and various aspects of life. The study is anticipated to offer more intricate insights into the factors that contribute towards higher life satisfaction of Penangites, and more understanding into the elements that are important to their state of well-being. Subsequently, it is hoped that the formulation and design of policy-making by the government will acquire an in-depth understanding of Penangites’ happiness and well-being and thus raise the efficacy of its policies.

In building the HIP Index, the framework of Bhutan’s GNH is used as a point of reference, with careful consideration given to other existing happiness surveys and research. This is further explored and discussed in subsequent chapters detailing the indicators used in building the HIP Index, as well as the methodology used in calculating the index.

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² The 2021 report ranks the happiness of 149 countries from 2018 to 2020, averaged across the years where data are available, as collection of 2020 data for certain countries was hampered significantly by the pandemic.
³ The Gallup World Poll consisted of a set of nationally representative surveys undertaken in more than 160 countries in over 140 languages.
1.2 Objectives of the Study

This project aims to achieve the following objectives:

i. To identify the main domains for the HIP Index;

ii. To identify the indicators for life satisfaction and sufficiency within the main themes for the HIP Index;

iii. To present life satisfaction in accordance with the identified indicators;

iv. To calculate and analyse the HIP Index as a measure to present the life satisfaction and happiness levels of Penangites;

v. To understand the corresponding areas of sufficiency and insufficiency across the identified stratifications.
2.0 Domains and Indicators

Since the change of government in the 12th general election in 2008, the incumbent state government has endeavoured to abide by its slogan of Competency, Accountability and Transparency (CAT). After its third consecutive victory in the 14th general election (held in 2018), the Penang2030 vision was established with the understanding that the design of public policy has to be people-centric rather than state-centric (Penang2030 Unit, 2019). It aims to be inclusive and acts as a platform where citizens and the public sector come together to address and overcome challenges, be they sociological, political, economic or cultural.

Taking a multidimensional approach, the HIP Index is designed in consideration and in alignment to the Penang2030 vision. The four main themes for Penang2030 are:

- **Theme A: Increase liveability to enhance quality of life**, with its main focus being housing affordability and diversity, improving public safety and cleanliness, enhancing welfare and care systems, and diversifying facilities for recreation, sports as well as arts and culture.
- **Theme B: Upgrade the economy to raise household incomes**, where the emphasis lies in preparing and advancing local manufacturing industries for the digital age and the green economy, modernising and diversifying agriculture for sustainability purposes, creating tourism products of excellence for the whole of Penang, and building an ecosystem which fosters and nurtures creative industries and niche business services.
- **Theme C: Empower people to strengthen civic participation**, which places importance on uplifting and supporting vulnerable communities through reducing inequalities, boosting the participation of youth, women and seniors in the community, encouraging the involvement of the public in social development, and accelerating programme delivery and institutional reform.
- **Theme D: Invest in the built environment to improve resilience**, which stresses on effective spatial planning for the purposes of balancing development, strengthening mobility, connectivity and digital infrastructure, incorporating smart technologies in the integration of municipal services, and developing and implementing comprehensive climate change adaptation plans.

In accordance with these themes, the four domains that constitute the Index (shortened as FEEL) are as follows:

- Freedom and Governance
- Economic Well-being
- Environmental Sustainability
- Liveability and Social Well-being

Within each of these are separate indicators to help analyse the happiness and life satisfaction of Penangites. These indicators are as follows:

- **Freedom and Governance**: Political freedom, community and civic participation, religious/cultural/spiritual freedom, freedom of speech, fundamental human rights, governance;
- **Economic Well-being**: Income and salaries, household expenditure, financial security, asset ownership, employment opportunities, social and economic mobility;
- **Environmental Sustainability**: Environmental conservation, environmental issues and awareness, environmental policies, eco-friendly behaviours; and
- **Liveability and Social Well-being**: Housing, family and community well-being, culture and heritage, safety and security, cleanliness, urban connectivity, digital connectivity, physical health, well-being and quality of life.

### 2.1 Domain 1: Freedom and Governance

Freedom and Governance are important aspects when it comes to evaluating life satisfaction. The assumption is that the degrees of freedom accorded correlate positively with happiness and life satisfaction. A person with more freedom (actual and/or perceived) is assumed to be happier than those who are more restricted. This notion is supported by Haller and Hadler’s (2014) research, where it is found that people living in situations where they have more freedom in making personal and political choices are happier. This then confirms the hypothesis that the degree of individual freedom has important significance for the level of happiness.

Other studies have also shown that citizens living under more authoritarian governments, hence enjoying less freedom in comparison to their more democratic counterparts, record lower levels of happiness (Inglehart & Ponarin, 2013). Democratic governments typically allow their citizens greater political freedom, more autonomy in making choices and greater freedom in expression, be it in words or actions. In this sense, good governance is presumed to contribute positively towards the happiness of the people.

The pursuit of freedom, political and otherwise, has been linked to the measurement of happiness, as it is believed that life satisfaction will increase with the ability to make one’s own choices (Rahman & Veenhoven, 2017). Notably, the perception of one’s freedom is important in determining happiness – they may be limited in freedom but will still identify themselves as being happy if they believe themselves to be free. Both actual freedom and perceived freedom can influence the levels of happiness and life satisfaction (Brulé & Veenhoven, 2014).

For this study, the indicators used to measure satisfaction within the domain of Freedom and Governance are: political freedom, community and civic participation, religious/cultural/spiritual freedom, freedom of speech, fundamental human rights and governance.

**Indicator 1: Political freedom**

Political freedom is largely defined as the lack of restrictions and difficulties in the process of participation in political decision-making (Veenhoven, 2000). The ability to vote and freely choose governments is perceived to correlate positively with life satisfaction. As it is, the people should have the right to freely elect their government across the federal, state and local levels.

Inglehart and Ponarin’s (2013) study found that higher levels of democratisation lead to higher levels of happiness. It can be surmised that active participation in political processes are presumed to result in greater life satisfaction and happiness. People are more likely to accept political outcomes, even ones that are undesirable, when they are given the choice to determine
their governments, given that they consider the political system in place to be fair. A sense of satisfaction can be attained from the perceived fairness of the democratic process of elections, in addition to their ability to participate in the process (Dorn et al., 2007). In essence, a greater perception of political freedom and a high participation in political processes will give rise to higher levels of happiness.

This indicator will measure people’s satisfaction with political freedom from these aspects: freedom to vote for government of choice, freedom and fairness of elections, and the absence of local elections.

**Indicator 2: Community and civic participation**

The ability to freely participate, and to be able to shape and contribute to a better and more inclusive community has positive effects on life satisfaction (Leung et al., 2011). In fact, higher engagement in community initiatives is seen to relate positively with higher self-confidence and self-efficacy, hence resulting in improved life satisfaction (Attree et al., 2011). This also seemingly applies to increased volunteerism in the community, where active volunteers report higher levels of self-esteem in comparison with those who have not been as active in volunteering activities (Brown et al., 2012).

Civic engagement is seen to empower the accumulation of social capital. Active participation in civic society builds social capital and contributes positively to subjective well-being and life satisfaction (Leung et al., 2011). Positive associations between civic engagement and happiness signify that involvement in the community can increase personal satisfaction. In essence, greater freedom afforded to community and civic participation will lead to higher levels of happiness.

The respondents’ satisfaction with civic participation is gauged by their satisfaction levels in their freedom to participate, make decisions and volunteer in the community.

**Indicator 3: Religious/cultural/spiritual freedom**

Religion and culture are shown to influence and contribute positively towards life satisfaction. Individuals with stronger religious beliefs have been found to be able to cope better when facing distressing and traumatic events in life (Lelkes, 2002). Religious/spiritual beliefs seem to enhance well-being, even in the absence of prosperity (Inglehart, 2010). It is further found that religious people tend to be happier than those who are non-religious, even more so when the variable for a country’s level of economic development is applied. Additionally, Rowold (2010) also stipulated that personal and transcendental spiritual well-being is significantly related to psychological well-being. A strong satisfaction with one’s spiritual well-being is therefore presumed to result in elevated levels of happiness.

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4 Inglehart (2010) found that religion is able to compensate for poverty when it comes to the happiness of some low-income communities/countries. Religious people in low-income communities are substantially happier than non-religious people in the same community.
Therefore, the freedom to practice one’s religion of choice and the freedom to adhere to individualistic religious/cultural/spiritual beliefs are predicted to be significant contributors to an individual’s self-reported well-being and happiness.

Satisfaction towards religious/cultural/spiritual freedom is measured by the freedom to choose religion and beliefs, freedom to practice one’s religion of choice, freedom to dress in accordance with one’s religious and/or cultural beliefs and freedom to hold religious and/or cultural festivals.

**Indicator 4: Freedom of speech**

Freedom of speech is an integral part of freedom and an important civil right. The ability to speak freely on various topics of personal importance is a vital component of a democracy. More freedom to exercise free speech signifies more democratisation, and is deduced to have a positive correlation on the level of an individual’s life satisfaction (Inglehart & Ponarin, 2013). Individuals who are allowed to speak their minds and are given the capacity to express their opinions freely are likely to feel more satisfied than those who are not afforded the same freedom.

In addition, countries with greater press freedom, hence signifying a wider space for free speech, are found to record higher levels of happiness (Tandoc & Takashi, 2013). Free press represents variety and diversity in content as opposed to reliance on a government-controlled press for information. Citizens benefit from reliable and objective information flows; and the ability to speak freely on the information they receive is seen to improve quality of life and push up the level of happiness.

The sub-indicators of freedom to voice political opinions, freedom to voice religious opinions and freedom to gather are used to measure Penangites’ satisfaction levels towards freedom of speech.

**Indicator 5: Fundamental human rights**

Fundamental human rights should be bestowed upon each and every individual without question and without prejudice. The effective functioning of human rights, be it political, social or economic, has implications on how individuals perceive their happiness. As Inglehart & Ponarin (2013) have found, citizens under autocratic governments, who are presumably accorded fewer human rights, are less happy compared to citizens of democratic nations. Respect and tolerance for the rights of others and adherence to fundamental human rights are important for the sustenance of happiness in the domain of Freedom (Rahman & Veenhoven, 2017). Individuals who perceive themselves as having more freedom in exercising their fundamental human rights are expected to feel happier than their counterparts who feel restricted in claiming the same rights.

To evaluate the satisfaction levels of Penangites in accordance with this indicator, respondents are asked to assess their satisfaction based on these three statements: “I am treated as free and equal regardless of my ethnicity/gender/religion and/or socioeconomic status”, “I am equally protected by the Constitution and the law” and “I have equal access to all employment opportunities”.

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**Indicator 6: Governance**

A democratic government that respects universal human rights and civil liberties tends to have citizens that are more satisfied when it comes to evaluating governance. Satisfaction with governance is seen as an integral component in the measuring of happiness. Life satisfaction increases when governments display a higher quality of governance, especially with regards to transparency and accountability (Helliwell & Huang, 2008; Debnath & Shankar, 2014). Conversely, undesirable issues in governance such as corruption are seen to have a negative correlation to happiness (Veenhoven, 2000).

Strong linkages are also seen to exist between trust, governance and life satisfaction. A positive perception of good governance builds and deepens citizens’ trust towards their government, and this, in turn, produces higher levels of happiness (Helliwell & Huang, 2008; Veenhoven, 2004). Good governance also typically signifies effective and inclusive policy-making in areas of economic development and social policy (Veenhoven, 2004). Therefore, it can be surmised that governance is a critical indicator when it comes to assessing happiness.

The governance of both federal and state governments is evaluated in the areas of: fighting corruption, enhancing public service delivery, competency, accountability, transparency and the management of the Covid-19 pandemic. The federal government is also further evaluated on the aspects of reducing wealth inequality and providing educational needs.

### 2.2 Domain 2: Economic Well-being

Economic well-being was identified as one of the key dimensions of people’s happiness or life satisfaction. According to the Council on Social Work Education (CSWE), economic well-being is defined as having present and future financial security. Financial security means the ability of individuals, households, and communities to consistently meet their basic necessities, e.g., food, housing, utilities, health care, transportation, education, clothing, etc., and having control over their everyday finances.

Easterlin (1974) argued that the rise of income does not necessarily translate to rising happiness, as shown in his studies on income and happiness in the United States and Japan, where rapid GDP growth and increased income did not appear to result in higher levels of happiness. However, other studies (D’Ambrosio & Frick, 2007; Helliwell et al., 2012; Boarini et al., 2012) have shown that rising income and improved economic situations do lead to increased well-being and life satisfaction in some countries, notably Brazil and China. Helliwell et al. (2012) opined that typically, economic growth and well-being do improve happiness if all other things are equal. However, they were also careful to caution that other aspects of life (for example, access to education, health, etc.) are not often equal, hence the contribution of economic well-being to happiness needs to take a multidimensional approach. In this sense, it is clear that we cannot exempt economic well-being in the measurement of happiness, as it remains a very essential domain in the evaluation of happiness and life satisfaction.

In this study, income and salaries, household expenditure, financial security, asset ownership and social mobility are used as indicators to measure economic well-being. These variables have been found to contribute to a higher quality of individual and community life (OECD, 2013).
**Indicator 1: Income and salaries**

Income and salaries are essential components of an individual’s economic well-being. Income basically indicates the economic resources at a person’s disposal to gain access to goods and services, and to satisfy their needs. As mentioned previously, despite Easterlin’s (1974) argument, there have been research studies that indicate income does influence happiness. Both absolute and relative income matter when it comes to well-being (D'Ambrosio et al., 2019). For instance, Caporale and colleagues (2009) found that rising personal income is correlated positively with both happiness and life satisfaction.

Reference income is also defined as one of the characteristics in measuring income satisfaction. Often, our level of income satisfaction depends on what we see around us and where we perceive ourselves in the social hierarchy (D’Ambrosio & Frick, 2007). The level of income with a reference comparison group (within the community and/or with people of similar social characteristics such as level of education and occupational status) has the ability to affect one’s happiness level (Caporale et al., 2009, D’Ambrosio et al, 2019). One is more likely to be happier if one’s income is higher when compared to the group, and vice versa.

Essentially, income and money may not be the sole indicator for happiness, but it is needed to procure other elements that contribute towards increased satisfaction and well-being.

In this study, income satisfaction is gauged by measuring the levels of satisfaction towards monthly income, the effects of the Covid-19 pandemic on income, and the perception and comparison of wealth against others within the same community.

**Indicator 2: Household expenditure**

Household expenditure is another indicator that is usually applied to measure living standards and economic well-being (Hamid et al., 2019). Household needs and wants can be satisfied by purchasing and consuming both goods and services. Studies have shown that there is a relationship between consumption and happiness, although consumption is multifaceted and life-orientated in nature (Zhang & Xiong, 2015; Wang et al., 2019). Different types of expenditure, both monetary and experiential, act to improve certain aspects of life, and one is perceived to attain happiness from it.

The degree of satisfaction towards expenditure and consumption patterns is assumed to be a reliable indicator for happiness. Different levels of expenditure in various categories may result in varying degrees of happiness, but overall, there is sufficient evidence to show that expenditure and consumption do contribute to increased happiness (Wang et al., 2019). The fulfilment of material needs in a household and for an individual is important, but at the same time, the perception towards the costs of goods is also a factor in measuring satisfaction towards expenditure.

The indicators used to measure satisfaction with household expenditure are mortgage/rent, food (dining out), entertainment (leisure), groceries, petrol/transportation, shopping (clothing, etc.), communication (phone, internet), utility bills and health care.
**Indicator 3: Financial security**

Financial security means being economically stable and having enough money to comfortably cover expenses. Financial security is highly dependent on income, expenditure and savings. Household debt is a major obstacle in achieving financial security, especially for low-income groups. The level of household debt in Malaysia is high by regional standards. Of the total household debt, more than half is residential mortgages (IMF, 2020).

Studies show that the savings ratio has a significant impact on people’s overall happiness or life satisfaction (Cebr, 2019). Low liquidity and account balances are seen to result in economic and emotional distress, leading to decreased levels of happiness (Ruberton et al., 2016). Further research has also indicated that individuals’ perception of their financial security has implications on satisfaction levels for overall economic well-being (Michalos, 2000; Howell et al., 2012). Efficient management of debt and the ability to have a financial buffer in times of economic crisis are seen as beneficial and a key to improving potential happiness.

Financial security in this study is evaluated by people’s level of satisfaction with their amount of savings and debt, as well as their savings available upon immediate loss of income.

**Indicator 4: Asset ownership**

Asset ownership has been identified in various studies as a key indicator in measuring economic well-being and living standards (Solaymani et al., 2019; Helliwell et al., 2012; Prakongsai, 2006). Assets are used to smooth consumption over a life cycle to generate stability in an individual’s economic well-being. There is a positive relationship observed between asset ownership and happiness, even beyond income constraints (Huang et. al., 2012). For instance, a case study in urban China found homeownership to be a strong estimator for happiness, while Veenhoven et al. (2021) found that car ownership also generates higher levels of happiness.

Assets may also serve as a form of security against debt in addition to protecting against any unwanted and unmitigated income shocks (Jantsch & Veenhoven, 2019). Moreover, assets are also seen as a form of investment where additional income could potentially be generated, which in turn may add to overall life satisfaction.

The ownership of property and cars and the perception towards the importance of asset ownership are utilised to measure satisfaction towards asset ownership.

**Indicator 5: Employment opportunities**

A substantial body of literature shows a significant correlation between employment status and the levels of happiness conceptualised as life satisfaction (Frey & Stutzer, 2010; Aysan & Aysan, 2017). A favourable self-perception of one’s career and employment has a significant positive impact on life satisfaction. Work and employment do not only function as motivators for happiness but the happiness that they generate has an impact on labour market outcomes, productivity and firm performance (De Neve & Ward, 2017). In this sense, one can observe that happiness and employment interact in an interdependent and dynamic fashion.
Those who are employed (as employees and self-employed) generally report higher life satisfaction compared to those who are unemployed (Di Tella & MacCulloch, 2006; Aysan & Aysan, 2017). The more barriers one faces while seeking employment, the higher the dissatisfaction levels are projected to be. Job security is also an important component of job satisfaction. Additionally, De Neve and Ward (2017) found that accumulated social capital at workplaces through strong work relationships also contributes to higher levels of job satisfaction. Expectedly, higher job quality and job satisfaction across all aspects will result in greater levels of happiness.

The following sub-indicators are used to evaluate satisfaction towards employment: availability of job opportunities, current employment, security of current employment, training and development opportunities, and the relationship with supervisor and colleagues. Meanwhile, the barriers to seeking employment are: mismatch of skills and occupation, discrimination, lack of interview skills, lack of experience, lack of technical skills and lack of education.

**Indicator 6: Social and economic mobility**

Upward social and economic mobility is believed to boost an individual’s level of life satisfaction by increasing that person’s level of resources, which can help him/her achieve a specific goal and contribute to upward social comparisons. Upward mobility is also seen as a highly desirable life change. Social mobility is one of the main determinants of subjective well-being and life satisfaction (Hsiao et al., 2020; Hadjar & Samuel, 2015). Education, career choice and income are critical driving forces that can influence social and economic mobility.

An individual’s life satisfaction is predicted to be higher if they perceive themselves to be upwardly-mobile, especially when in comparison to parents and/or peers (Hsiao et al., 2020). Inter-generational and intra-generational positive trajectories are seen to be equally important for increasing well-being and satisfaction, while downward mobility will produce the opposite and adverse effects (Zhao et al., 2017).

Satisfaction with social and economic mobility is measured via the respondents’ satisfaction in their education, employment opportunities and purchasing power in comparison to their parents at the same stage in life.

2.3 **Domain 3: Environmental Sustainability**

According to the United Nations (UN) World Commission on Environment and Development, environmental sustainability is about acting in a way that ensures that future generations have natural resources available to live an equal, if not better, way of life than current generations. Environmental costs cannot be ignored in the race towards economic development. Various studies have proven that there is a positive correlation between environmental sustainability and people’s well-being and happiness (Aksoy & Bayram Arli, 2020; Kaklauskas et al., 2020; Zidanšek, 2007). Zidanšek’s study also discovered a causal relationship between the environment and happiness: people who perceive themselves to be living in a good environment are happier, and in turn, a sustainable environment also generates higher levels of happiness.
As such, environmental sustainability is undeniably important for human well-being, and has direct, indirect and mediation effects for happiness, in conjunction with other domains (Aksoy & Bayam Arli, 2020). Countries that are able to generate strong economic development without causing high degrees of damage to the environment are seen to more be successful in achieving better welfare and higher levels of happiness for their citizens (Lamb et al., 2014, cited in Aksoy & Bayam Arli, 2020; Zidanšek, 2007).

In the current study, the level of satisfaction pertaining to the Environmental Sustainability domain, therefore, refers to perceptions regarding environmental protection, environmental issues and awareness, as well as policies and environmentally friendly behaviours.

**Indicator 1: Environmental conservation**

Humans and nature are closely connected. The Brundtland Commission stated that sustainable development must include environmental conservation alongside economic development since the conservation of the environment and the efficient management of natural resources are intricately linked to higher economic living standards and well-being (World Commission on Environment and Development 1984, cited in O’Brien, 2010; McKinnon et al., 2016).

Sustainable happiness is seen to be dependent upon the conservation and sustainability of the natural environment (O’Brien, 2010). Various studies have shown that being exposed to green natural environments improves mental well-being, reduces stress and increases positive emotions (White et al., 2019; MacKerron & Mourato, 2013). Environmental conservation not only elevates the overall well-being of an individual but is also highly beneficial towards community, country and global well-being and happiness.

In determining Penangites' satisfaction towards environmental conservation, the following aspects are considered: forest and hill conservation, conservation of water, environmental laws and enforcement, sustainable and balanced development, and disaster management.

**Indicator 2: Environmental issues and awareness**

There is no doubt that human activity is hugely responsible for damaging the environment which, in turn, affects our quality of life. Air, water and noise pollution have well-documented adverse effects on health, which lead to decreased well-being and subsequently, result in detrimental effects on happiness (MacKerron & Mourato, 2013). However, awareness of and concerns about environmental issues, particularly within a community, could also negatively influence happiness levels, both directly and independently (Zurick, 2006; McKerron & Mourtato, 2013).

Nevertheless, knowledge and awareness about environmental issues would lead to more effort and actions to protect the environment, minimise environmental damage and reduce the impact of these issues in the community, hence increasing life satisfaction. In an interdependent relationship, the pursuit of happiness can lead to increased efforts in reducing the impact of pollutants and other environmental issues (Zidanšek, 2007).

As mentioned, higher levels of concern with environmental issues have been shown to result in lower levels of satisfaction. The environmental issues evaluated in this study are as follows: river pollution, noise pollution, marine and coastal pollution, air pollution, landslides, waste
management issues, inadequate green spaces and access, reclamation, flash floods and loss of agricultural land.

**Indicator 3: Environmental policies**

Proper environmental policies that are compatible and integrative with other development sections will help to protect the environment and deal with the causes and effects of environmental externalities (Zurick, 2006; Ura et al., 2012). Apart from increasing citizens' life satisfaction, effective environmental policies often also result in economic and social sustainability, which holds positive implications for overall happiness.

To achieve a greener and more sustainable city status, various environmental protection plans and programmes have been implemented in Penang, including waste segregation at source, campaigns against plastic bags and single-use plastics and free CAT bus services. Based on the latest available data (2018), the state has spent about RM219.7 million on environmental protection. Waste management expenditure was the largest contributor at RM116 million (52.8%), followed by pollution management at RM99.3 million (45.2%).

This study measures the satisfaction of Penangites with environmental sustainability in the state through these policies: Cleaning up of Penang’s rivers and seas, the No Plastic Bag Campaign, the No Single-Use Plastics Campaign, Free CAT bus services and the Practice 5R (Reduce, Reuse, Recycle, Rethink and Reinvent) Policy. Additionally, their satisfaction with efforts and policies implemented to protect the environment are also evaluated.

**Indicator 4: Eco-friendly behaviours**

Environmentally responsible behaviours play an important role in achieving environmental sustainability. Most environmental issues prevail as a consequence of unsustainable human behaviour.

Research has shown that those who are environmentally conscious and who engage in behaviours that are environmentally friendly show higher life satisfaction levels and tend to be happier (Brown & Kasser 2005, cited in Venhoeven et al., 2016). Environmentally friendly behaviours bring more positive emotions, such as happiness, which is associated with being in a favourable environment (Corral-Verdugo et al., 2011). Furthermore, environmentally friendly actions, which are often seen as “moral” and “altruistic”, boost people’s positive self-image, which then acts to improve well-being and happiness (Venhoeven et al., 2016; Corral-Verdugo et al., 2011). Thus, it can be concluded that eco-friendly behaviours can promote happiness, and higher engagement in said actions translates to higher life satisfaction, as it has an overall effect on environmental protection.

The frequency of respondents’ eco-friendly behaviours such as reusing materials, segregating waste, conserving energy, conserving water and visiting green spaces and nature reserves are measured, where higher frequency will indicate greater life satisfaction.
2.4 Domain 4: Liveability and Social Well-being

Liveability and social well-being are undoubtedly vital in determining life satisfaction and happiness. Liveability refers to a living environment that provides the conditions of a decent life for its inhabitants, and is often based on the values of sustainability. Indicators such as housing, access to food, safety and security as well as transportation are seen as important variables in assessing the quality of living conditions (Tay & Diener, 2011). Research has found positive associations between happiness, self-perception of the living environment and the quality of services available within the said environment (Goldberg et al, 2013). As such, a conducive living environment that is perceived to be safe and comfortable and that provides easy access to essential goods and services is a key contributor towards an individual’s happiness and overall physical and mental well-being. Additionally, those who report high satisfaction levels with their living conditions also tend to feel healthier, and health is acknowledged to be a significant component of happiness (Goldberg et al., 2013).

Social well-being and social needs are equally imperative parameters in the measurement of sustainable happiness (O’Brien, 2010). Social well-being is linked to social inclusion, as well as sense of belonging and engagement. The satisfactory attainment of social needs is also seen as a strong predictor in the cultivation of positive feelings (Teghe & Rendell, 2005). Public policies and action plans that focus on improving social well-being and welfare will contribute towards the improvement of life satisfaction.

This study has identified nine indicators to study the satisfaction of Penangites towards liveability and social well-being in the state: housing, family and community well-being, culture and heritage, safety and security, cleanliness, urban connectivity, digital connectivity, health as well as well-being and quality of life.

**Indicator 1: Housing**

Housing, necessitated by our basic need for shelter, security, privacy as well as personal space and comfort, has a great influence on quality of life and is a key indicator in assessing liveability (Balestra & Sultan, 2013). Adequate housing provides the setting for building both family and community relationships and enables access to work and leisure (Clapham, 2010). The assessment of housing conditions from the aspects of density, maintenance and accessibility is important towards individual well-being as well as familial well-being. Unsatisfactory housing conditions can threaten the function of self and family, and at times, result in stress and poor health conditions (Byrne et al., 1986, cited in Clapham, 2010; Balestra & Sultan, 2013), which will then drastically reduce life satisfaction.

Additionally, high accessibility to goods, services and transportation from housing areas is also an important indicator in gauging satisfaction towards housing. Clapham (2010) suggests that individuals (and households) regard satisfaction towards housing as one of the means to achieving happiness, in addition to contributing towards a positive sense of self-identity.

The indicators used to evaluate Penangites’ degree of satisfaction towards housing are as follows: maintenance of property, density, accessibility to food, accessibility to parks and green spaces,
accessibility to public services (schools, hospitals, civil defence) and accessibility to public transport.

**Indicator 2: Family and community well-being**

A number of studies have identified strong family ties to be an important contributor towards life satisfaction (Cummins et al., 2003; Helliwell & Wang, 2010). In a study conducted by Crossley and Langdridge (2005), close family relationships, lack of family problems, being loved by family and family support are identified as important sources of happiness. Stronger familial relationships with high levels of trust are shown to have direct and positive consequences towards the degree of life satisfaction. At the same time, resilient familial structures are regarded as the building blocks for strong and supportive community networks (Cross & Langdridge, 2005).

In addition, social connections within the neighbourhood and community can contribute to overall happiness (Tay & Diener, 2011; Balestra & Sultan, 2013). Community participation increases the sense of community belonging, which in turn contributes to higher levels of happiness. The degree of trust between members of the community is also a critical factor in determining community well-being, and community trust and vitality are important factors in measuring life satisfaction. Civic engagement and active participation in community activities build social capital, which then acts to improve social well-being (Helliwell & Putnam, 2004; Leung et al, 2011). Additionally, social connections and high levels of social trust hold positive correlations to life satisfaction (Boarini et al., 2012).

Satisfaction towards family interaction is measured by the support from family members, time spent with family members and trust levels between family members. On the other hand, the sub-indicators of relationship with neighbours, community participation, trust between community members and community involvement by elected representatives are used to assess satisfaction towards community interaction.

**Indicator 3: Culture and heritage**

Malaysia is a multi-ethnic and multicultural nation where each ethnic group preserves its own cultural identity and customs, and celebrates a range of cultural festivals. Cross-participation is frequently observed when it comes to the celebration of different festivals, showing the deep respect and acceptance that each group holds for the heritage and traditions of their fellow citizens.

Cultural and traditional values play a vital role in the shaping of attitudes, behaviours, social values, self-views and beliefs (Lu & Gilmour, 2004). As cultural heritage is important in defining the identity of both individuals and the community, it holds significant implications in the measurement of happiness (Gautam, 2018). The celebration of culture through festivals helps to maintain cultural identity in addition to celebrating and acknowledging diversity.

In this study, the importance of culture and heritage for an individual is considered and measured, in addition to satisfaction towards the celebration of festivals such as Hari Raya, Chinese New Year, Deepavali and the respective Malay, Chinese and Indian cultural festivals.
**Indicator 4: Safety and security**

Safety and security is an important indicator in analysing liveability. A living environment that is considered safe and secure has low crime rates and individuals would feel safe walking alone at all times of the day (Tay & Diener, 2011; Goldberg et al., 2013). In addition to basic living needs such as shelter and food, safety is found to be equally essential in fulfilling an individual’s psychosocial needs (Tay & Diener, 2011), which have important implications on life satisfaction.

Various research studies have suggested that living in a safe environment holds a positive correlation with life satisfaction (Dolan, Peasgood & White, 2008; Balestra & Sultan, 2013). In addition to that, Susniene and Jurkauskas’ (2009) study have found that safety and security needs are one of the top indicators in assessing the quality of life. A high sense of personal safety and a secure living environment, equipped with convenient access to civil defence services, would have positive effects on overall life satisfaction.

Satisfaction towards safety and security is measured by: maintenance of public order and security, access to civil defence services, street lamps/lighting and illumination as well as the availability of public security cameras. In addition, the respondents’ perception of safety in their community as well as their concerns towards crime and social problems are also evaluated.

**Indicator 5: Cleanliness**

A clean environment is naturally more liveable, as cleanliness leads to greater comfort. As such, perception of cleanliness is often used as an indicator in measuring satisfaction within the neighbourhood and residential area (Hur & Morrow Jones, 2008). A cleaner and greener environment, where cleanliness can be measured through air and water quality as well as surface cleanliness, is proven to contribute positively to levels of satisfaction and happiness (Vemuri et al., 2011). Clean environments also play a role in promoting better public health and help to reduce communicable diseases.

This also extends to environments beyond the personal living space and neighbourhood surroundings – cleanliness in public spaces is equally important in maintaining life satisfaction (Hur & Morrow Jones, 2008). Public roads and streets that are orderly and free of debris will create an aesthetically and emotionally pleasing atmosphere, which increases feelings of comfort and satisfaction. At the same time, clean rivers and seas as well as efficient drainage and sewage systems are equally important in the maintenance of public cleanliness, which will subsequently raise liveability and life satisfaction. As such, clean, natural environments are able to evoke feelings of positivity and increase well-being.

Cleanliness in public spaces, public toilets, rivers and seas as well as drainage and sewage systems are the sub-indicators used to determine satisfaction towards cleanliness. Additionally, satisfaction towards the maintenance of overall cleanliness by the two city councils are also recorded.

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5 This indicator was discussed in Domain 3: Environmental Sustainability.
**Indicator 6: Urban connectivity**

Urban connectivity takes into account both the availability of public transportation and road connectivity. An effective transportation system and good road connectivity increase an individual’s mobility and enable their participation in the essential parts of life. Transport and mobility are notably important to access components that are fundamental to well-being, such as work and employment, socialisation and relationships as well as health maintenance (Delbosc, 2012; Kent et al., 2017). The efficiency and connectivity of road networks coupled with adequate maintenance of said roads have the potential to reduce travel time in addition to increasing convenience, hence increasing accessibility and satisfaction with mobility.

Additionally, it is also found that satisfaction with daily mobility, dependent on the mode of transportation, has positive effects on well-being, and vice versa (Bergstad et al, 2011). Satisfaction towards public transport services has been indicated as one of the measures used to evaluate well-being, as transport disadvantage can potentially lead to social exclusion and decreased well-being (Kent et al., 2011). An efficient and extensive public transportation system serves to increase accessibility for those without private transportation, and enhance their life satisfaction.

Perceptions towards public transportation and road networks are seen as important indicators in assessing life satisfaction. Satisfaction towards public transportation is evaluated from the angles of overall connectivity, efficiency, accessibility, frequency and safety. For road and urban connectivity, satisfaction is assessed through overall road network and connectivity, road conditions, traffic conditions, walkability and pedestrian crossings, cycling lanes and availability of parking spaces.

**Indicator 7: Digital connectivity**

Digital connectivity is perceived today as a need in both developed and developing countries, and serves as an imperative measure of life satisfaction. It has become ingrained as a necessity as it is increasingly significant in the way we gain information, work, spend our leisure time, consume, manage our finances and more (Mitchell et al., 2011). Upon controlling for income and other determinants for well-being, information technology is still proven to have a direct and positive impact on life satisfaction (BCS, 2010).

Technology and the internet are important tools for knowledge and communication, and can serve to enrich social relationships (Morcillo, 2018). Social support is recognised as one of the main factors in enhancing happiness, in addition to increasing psychosocial well-being. Furthermore, technological applications possess the characteristics of a relational good, and happiness is found to increase with the consumption of relational goods (Gui & Stanca 2010, cited in Morcillo, 2018). As such, satisfaction with digital connectivity is considered one of the major factors in assessing happiness.

Satisfaction towards digital connectivity is measured from the aspects of access and stability, speed as well as affordability. The efficiency of the government’s online procurement services as evaluated by the respondents is also documented.
**Indicator 8: Health**

It is undeniable that good physical health is an important component in evaluating life satisfaction, and is most conducive to happiness. Satisfaction with health is highly correlated to happiness. In fact, it has been suggested that the effects of health on happiness may be more statistically significant than income on happiness (Graham, 2008). It goes without saying that good health is more likely to generate higher levels of happiness, while health shocks such as diagnoses of chronic illnesses will cause possibly lasting negative effects on life satisfaction. However, there is also an interdependent relationship between happiness and health, where causality goes both ways, as happiness has its own determinant in increasing good health (Graham, 2008).

On the other hand, studies have also found that correlations of happiness are stronger in self-rated health perceptions, as compared to ratings based on medical tests and examinations (Veenhoven, 2008; Diener & Chan, 2011). How an individual actually physically feels is seen to have a higher bearing on their happiness when evaluated against the contents of medical reporting and its corresponding results. Hence, the self-perceptions of the respondents towards the situation of their health will be a good measure of their life satisfaction.

The satisfaction of the respondents towards the state of their health is measured in this study by their perceptions towards the consistency and quality of exercise, diet/nutrition and health habits.

**Indicator 9: Well-being and quality of life**

The constructs of well-being and perceptions of quality of life have been utilised in various studies in conceptualising happiness (Diener & Chan, 2011; Medvedev & Landhuis, 2018). These perceptions are mostly subjective and are dependent on the individual’s own assessment. This evaluation, depending on how much a person enjoys life in addition to how they rate the quality of their present life, has a role in determining the level of happiness of the said person (Veenhoven, 2001; Susniene & Jurkauskas, 2009). Assessing the quality of life takes into account several different domains and factors, but at the same time, the factors vital for increasing one person’s quality of life may be markedly different for another. Quality of life is both objective and subjective, with the former fulfilling economic and societal metrics while the latter is dependent on positive feelings and personal outlook (Medvedev & Landhuis, 2018).

Well-being is sometimes seen as synonymous with happiness, although there is some consensus that subjective well-being can be defined as an assessment of both quality of life and life satisfaction (Diener & Chan, 2011; Medvedev & Landhuis, 2018). Different aspects of life contribute towards individual well-being and influence happiness accordingly. As with quality of life, the measurement of these different aspects is important in creating an overall picture of well-being for different people, often in a myriad of individualistic ways, pertaining to what aspect is deemed most important, and so on.

This study takes into account health, employment, family relationship, environment and surroundings, work-life balance, diet and sleep in assessing well-being. Present quality of life is also assessed in comparison to the quality of life before the pandemic. Respondents are also asked to state their perception of current happiness based on the Cantril ladder.
In conclusion, the questions in the Happiness Survey used to build the HIP Index will centre around the four domains and 25 indicators described above, and the responses received will then form the basis for constructing the HIP Index.
3.0 Methodology

The HIP Index uses Bhutan’s GNH framework as a main point of reference. It is constructed using the Alkire-Foster method of multidimensional measurement (Alkire and Foster, 2011). The study applies data from the Happiness Survey on individuals aged 15 and above in Penang (n=3,011). The computation of the HIP Index is based on the identified list of domains and indicators as explained in Chapter 2. To measure the HIP Index five steps are followed:

1) Apply weights for each indicator;
2) Apply sufficiency thresholds;
3) Apply the happiness threshold;
4) Identify two groups: Happy people, and Not-yet-happy people (Narrowly happy and Unhappy); and
5) Identify among the Not-yet-happy people, the percentage of domains in which they lack sufficiency, and at what percentage they enjoy sufficiency.

3.1 Data Collection

The Happiness in Penang Survey was conducted through two methods: online survey and face-to-face field interviews. The survey was presented in two languages, Bahasa Melayu and English, and respondents were asked to choose the language they were most comfortable with. It was then completed in two phases, between September 2020 and October 2020, and in April 2021, a separation due to the Covid-19 pandemic and movement restriction orders. 3,011 responses were recorded, where the number is a statistically significant (with 2% Margin of Error) representation of Penang’s total population. 1,647 responses were collected via the online survey, while 1,364 face-to-face field interviews were conducted.

Although an equal representation across the distribution of different demographic factors such as district, gender, age and ethnicity are optimal and preferred, the collection of survey responses was impeded by minimal control over the demographics of the online respondents as well as the intermittent implementation of movement restriction orders in between data collection periods. Face-to-face surveys were carried out in order to achieve the most equal representation to the best possible outcomes.

The data collected from both methods were then compiled and cleaned. The levels of life satisfaction as recorded by the respondents and their perceptions on the importance of different aspects of life were then analysed by each domain and its corresponding indicators, and the descriptive results are presented in detail in Chapter 4.

3.2 Profile of Respondents

Figure 3.1 shows the percentage of responses collected across each of Penang’s five districts. Timur Laut recorded the highest number of responses (33.6%) being that it is also the most populated district in Penang, with Seberang Perai Utara seeing the second highest number of
responses at 19.7%. Despite being a less populated district, Barat Daya accounted for 16.9% of total responses, with most of the responses received via the online survey. As it is, there was difficulty achieving the most statistically accurate number of responses in each district as per population distribution due to the inability to control online respondents.

Figure 3.1 Percentage of respondents by district
(N = 3,011)

54.3% of the respondents were female, while the remaining 45.6% were male. Almost all responses were from the three main ethnic groups: Malay (43.9%), Chinese (42.8%) and Indian (12.5%) (Figure 3.2). 0.5% of the respondents identified as Other Bumiputeras, while 0.3% are categorised as Other Malaysians.\

Figure 3.2 Percentage of respondents by ethnicity
(N = 3,011)

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6 Responses included: Eurasian, Chinese-Indian, Chinese-Malay, Malaysian-Indonesian, Thai-mix, Sri Lankan-mix, Burmese-mix, Vietnamese mix, Peranakan
The highest proportion of responses was made up by youths between 15 and 29 years old. The group of 25- to 29-year-olds made up the biggest percentage of respondents at 18.4%, followed by 20- to 24-year-olds at 16.6% (Figure 3.3). A decline in the percentage of respondents per age group is observed from ages 30-34 onwards, with a lower percentage of responses from seniors (aged 55 and above). These differing percentages may be due to the use of the online survey as a medium, in which the younger age groups are more adept as well as more inclined to participate within.

![Figure 3.3 Percentage of respondents by age groups (N= 3,011)](image)

In terms of marital status, 49% of the respondents were married, while 46.6% were single or never married. The percentages are minimal for respondents who were divorced or separated (2.6%) and widowed (1.8%).

A majority of the respondents recorded an educational level of upper secondary and above, and only 6.2% professed an educational level of lower secondary and below (Figure 3.4). At 32.8%, bachelor’s degree holders were the highest among all respondents, while 22.9% hold a diploma/certificate and 24.7% have an upper secondary education. Overall, 71% of the respondents obtained a tertiary level of education.
More than half of the respondents, at 56.5%, cited their employment status as employed, while 12% identified as self-employed (Figure 3.5). With responses recorded across a variety of age groups, 15.8% are students, including at master’s and PhD levels. Out of the working-age population (respondents aged between 15 – 64 years old), 8.7% were unemployed, among which 4.3%—about half—are actively seeking employment.

As Figure 3.6 illustrates, almost a third of the employed respondents identified as professionals (32.5%). 10% of the respondents cited managerial positions as their occupations. Similar percentages were observed for respondents who were technicians/associate professionals (16.5%) and clerical support workers (16.3%). Services and sales workers made up 11.5% of total
respondents. Meanwhile, a combined percentage of 8.5% were involved in other occupational sectors.

In terms of skill level, 59% were involved in high-skilled occupations,\(^7\) while 36.3% were employed in the mid-skill occupational sectors. Low-skilled workers made up 4.8% of the total respondents.

As for those who were looking for employment, 30% were seeking employment as professionals, while 22.3% were looking for work in the sales and services sector. It can be deduced that among the respondents, these two occupational sectors were most affected by the fallout from the pandemic and the movement restriction orders. Clerical support workers and respondents in managerial positions were also affected, with 10% and 12.3% respondents seeking employment in those respective sectors.

**Figure 3.6 Percentage of respondents by status of employment and occupational sector**

(Employed, \(N = 1,701\); Not employed but looking for employment, \(N = 130\))

Note:
1. Manager (General Managers, Senior Management, Directors, Executive Directors)
2. Professional (Accountants, Lawyers, Doctors, Engineers, IT Analysts, etc.)
3. Technician and/or Associate Professional (IT Technicians, Teaching Assistants, Lab Technicians, etc.)
4. Clerical Support Worker (Clerks, Accounts Clerk, etc.)
5. Service and Sales Worker (Hospitality, Sales Persons, Customer Service Representatives, etc.)
6. Skilled Agricultural, Forestry and Fishery Worker (Farmers, Fishermen, etc.)
7. Craft and Related Trade Worker (Labourers, Construction Workers)
8. Plant and Machine Operator/Assembler (Machine operators, Factory Line Assemblers, etc.)
9. Elementary Occupation (Domestic Cleaners, Janitors, etc.)

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\(^7\) High-skilled occupations: Manager, Professional, Technician and/or Associate Professional
Mid-skilled occupations: Clerical Support Worker, Service and Sales Worker, Skilled Agricultural, Forestry and Fishery Worker, Craft and Related Trade Worker, Plant and Machine Operator/Assembler
Low-skilled occupations: Elementary Occupation
Figure 3.7 shows that more than 50% of the respondents earned between RM1,000 to RM4,999 monthly—32.5% in the range between RM1,000 and RM2,999, and 21.9% earn between RM3,000 and RM4,999. In terms of the highest and lowest income brackets, 4.9% earned less than RM900 monthly, while 3.4% earned RM11,000 and above. Some retirees with a monthly pension also recorded a response of monthly income received despite being retired.

![Figure 3.7 Percentage of respondents by monthly income levels](N = 3,011)

3.3 Weightage

Setting weights for each indicator is the first step in index measurement. As mentioned in the earlier chapter, four domains and 25 indicators were defined. Following the Alkire and Foster (2011) method, each of the four domains is equally weighted at 1/4, as each domain is judged to be normatively and roughly equal in importance. The indicators within each domain were also equally weighted (Table 1). For instance, each indicator within the Freedom and Governance domain receives a 1/24 weight (1/4 ÷ 6), while each indicator within the environmental sustainability domain receives a 1/16 weight (1/4 ÷ 4). All the weights on the indicators for one domain sum up to 1/4 and all the weights on all the indicators sum to 1.

<table>
<thead>
<tr>
<th>No.</th>
<th>Domains</th>
<th>Indicators</th>
<th>Weights</th>
</tr>
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<tbody>
<tr>
<td>1</td>
<td>Freedom and Governance</td>
<td>Political freedom</td>
<td>1/24</td>
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<tr>
<td></td>
<td></td>
<td>Community and civic participation</td>
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<td></td>
<td></td>
<td>Religious/cultural/spiritual freedom</td>
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<td></td>
<td></td>
<td>Freedom of speech</td>
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<td></td>
<td></td>
<td>Fundamental human rights</td>
<td>1/24</td>
</tr>
</tbody>
</table>
3.4 Thresholds

The HIP Index applies two kinds of thresholds or cut-offs: sufficiency thresholds (within each indicator), and happiness thresholds (across indicators). Sufficiency thresholds indicate how much an individual need to enjoy sufficiency in each of the 25 indicators. In other words, sufficiency thresholds show how much is enough to be happy. Sufficiency cut-offs are set based on relevant and appropriate national and international standards as well as normative judgements. Each of the 25 indicators has a sufficiency threshold and each person in the survey is identified as enjoying sufficiency or not in each indicator.

It is not necessary to have sufficiency in all of the indicators to be considered happy. Happiness is subjective and a personal experience, and people are free to choose the ways that help them to be happy. A person without education or a vehicle can find other routes to happiness. In addition, not all indicators are relevant to all people. For instance, digital connectivity may not be relevant to an elderly who does not use the internet and technology, and can live comfortably without digital technology. Hence, in order to respect diversity and freedom of respondents’ choice, three cut-off points were selected to generate different categories of people as well as to identify degrees of happiness. Those who achieved sufficiency in 66% or more of the weighted indicators are identified as happy, between 50-65% are seen as narrowly happy, and those who
achieved sufficiency in less than 50% of the indicators are categorised as unhappy. The study uses one overall Index for which the cut-off has been set at two-thirds, or 66%, of the indicators.

3.5 Index Calculation

As happiness is multidimensional, the Alkire-Foster (2011) method of multidimensional measurement has been used to estimate the HIP Index. This method has been widely used for measuring poverty (Bérenger, 2016; Solaymani et al., 2019) and happiness (Ura et al., 2012). It is a robust method that identifies a group – in this study, people who are not-yet-happy (vs. those who are happy) – through the “sufficiencies” they achieved. It involves counting the various types of deprivation that individuals experience simultaneously in different indicators, for instance, a lack of education or employment, or poor health or living standards. These deprivation profiles are then analysed to identify the mot-yet-happy people, and then applied to construct a happiness Index.

Distributional data is demonstrated in the form of an $n \times d$ matrix $Y = [y_{ij}]$ of achievements, with $n$ persons in $d$ different dimensions (in our case, indicators). For every $i=1, 2, ..., n$ and $j=1, 2, ..., d$, the typical entry $y_{ij}$ of $Y$ is individual $i$’s achievement in dimension $j$. The row vector $y_i = (y_{i1}, y_{i2}, ..., y_{id})$ comprises individual $i$’s achievements in the different dimensions; the column vector $y_j = (y_{1j}, y_{2j}, ..., y_{nj})$ presents the distribution of achievements in dimension $j$ across individuals.

The matrix includes the vector of cut-offs $Z$ and $z_0$, where $z_j$ is the cut-off value in dimension $j$. For any matrix $y$, it is possible to define a matrix of deprivations from sufficiency $g^0 = [g_{ij}^0]$, whose typical element $g_{ij}^0$ is defined by $g_{ij}^0 = 1$ when $y_{ij} < z_j$, and $g_{ij}^0 = 0$ when $y_{ij} \geq z_j$. It means that the $ij$th entry of the matrix is 1 when person $i$ has not achieved sufficiency in dimension $j$, and 0 when the person enjoys sufficiency.

For each of the $d$ dimensions or indicators, a weighting vector $\omega_d$ is applied. The insufficiency profile of person $i$ is then calculated by summing the weights of the indicators in which person $i$ has not achieved sufficiency.

3.5.1 Aggregation

To measure the HIP Index, the data of the population are aggregated into a decomposable “Adjusted Headcount” ($M_0$) measure which is sensitive to the “depth” and “breadth” of achievements (Alkire and Foster, 2011). $M_0$ is constructed based on two main components, namely $H_n$ or ‘headcount ratio’ and $A_n$ or ‘breadth’. $H_n$ represents the percentage of people who have not achieved sufficiency in 66% of the indicators, and are thus identified as not-yet-happy. The headcount ratio is formulated as follows:

$$H_n = \frac{1}{n} \sum_{i=1}^{n} q_i$$  \hspace{1cm} (1)
where \( q \) is the number of people who have not achieved sufficiency in two-thirds of the indicators and \( n \) is the total population. \( H_n \) might give an understandable indicator of happiness but it does not satisfy the property of dimensional monotonicity,\(^8\) meaning that if a not-yet-happy individual \( i \) becomes deprived in a new dimension, \( H_n \) remains unchanged (Alkire and Foster, 2011). The second component is \( A_n \), which represents the average proportion of dimensions in which people who are not-yet-happy experience insufficiency (this is similar to ‘intensity’ in poverty measures using the Alkire-Foster method). \( A_n \) expressed as:

\[
A_n = \frac{1}{d} \sum_{i=1}^{n} \sum_{j=1}^{n} g_{ij}^0 \sum_{i=1}^{n} q_i
\]  

\( M_0 \) is constructed by multiplying these two components.

\[
M_0 = H_n \times A_n
\]  

In fact, \( M_0 \) presents information on the incidence of unhappiness and the average proportion of dimensions in which a not-yet-happy person lacks sufficiency. \( M_0 \) satisfies dimensional monotonicity and is also decomposable by population groups. \( M_0 \) ranges from 0 to 1, with higher numbers indicating greater insufficiencies and less happiness. In order to create the HIP Index in which a larger number reflects greater happiness, the \( M_0 \) is subtracted from 1 to obtain the Index, and is given by:

\[
HIP = 1 - M_0
\]

The results from the application of the methods presented above will form the HIP Index, where further analysis will be made according to different stratifications to show the levels of happiness among Penangites. This will be discussed in detail in Chapter 5.

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\(^8\) Dimensional monotonicity means that if a Not-yet-happy person \( i \) becomes newly deprived in an additional dimension, then overall happiness should decrease.
4.0 Descriptive Statistics and Results

This chapter details the statistical results of the HIP Index survey, and provides an in-depth analysis into the satisfaction levels of all the respondents across the four domains and their respective indicators, incorporating the different aspects within the indicators. The perceptions of importance in various aspects of life are also explored.

4.1 Domain 1: Freedom and Governance

Indicator 1: Political freedom

The results of the 14th general election in 2018 were generally well-received, with 30.7% of the respondents citing they were satisfied, and an additional 13.7% being very satisfied. Additionally, 39.3% of the responses showed neutrality. In contrast, 16.3% of the respondents were less satisfied, with 9.8% being dissatisfied and 6.5% being very dissatisfied.

The trend of neutrality is predominant for satisfaction towards political freedom, with “neutral” being the most frequently chosen response for all the questions (Figure 4.1). Specifically, 36.3% were neutral towards freedom to vote for government of choice, 40.2% were neutral towards the freedom and fairness of general elections in Malaysia and 51.6% profess neutrality towards the absence of local elections. However, satisfaction levels were higher than dissatisfaction levels for freedom to vote and freedom of elections. For voting freedom, 35.5% of respondents were satisfied, and 13.3% were very satisfied. Comparatively, 28.3% cited satisfaction towards freedom and fairness of elections while 7.9% professed to be very satisfied.

Figure 4.1: Satisfaction levels towards political freedom (N = 3,011)

Penang being historically the first and last state to hold local elections in Malaysia, the restoration of local elections persisted as a topic of discussion and of importance for the state’s population. However, and as stated above, most of the responses were indifferent towards its absence.
Additionally, a significant percentage of respondents feel there is not a need for local elections, and were satisfied without it (21.6% satisfied, 5.9% satisfied). In contrast, a combined percentage of 20.9% were dissatisfied and were presumably welcoming towards the return of local elections.

**Indicator 2: Community and civic participation**

In terms of community participation, 43.9% of respondents were neutral towards its importance – this being the biggest proportion of answers. Nevertheless, a comparative 34.6% of respondents deemed community participation to be important, while 6.6% stated it to be very important. The remainder did not place importance in community participation.

Mirroring the respondents’ perception towards the importance of community participation, Figure 4.2 shows that the option of neutral was prevalent when measuring satisfaction against aspects of community participation; close to 50% of responses were neutral regarding the freedom to participate, to make decisions and to volunteer. Comparatively, satisfaction levels towards community freedom were higher when evaluated against the levels of dissatisfaction. In detail, 35.6% of respondents were satisfied towards freedom to participate, 32.1% were satisfied towards community decision-making while freedom to volunteer garnered 34.3% of satisfied respondents. Additionally, between 6.1% and 6.8% were very satisfied towards freedom of participation in the community. Approximately 10% of respondents were either dissatisfied or very dissatisfied towards the stated aspects of community participation.

![Figure 4.2: Satisfaction levels towards freedom of participation in the community (N = 3,011)](image)

**Indicator 3: Religious/cultural/spiritual freedom**

A majority of the respondents felt that their religion and beliefs received a measure of respect by others, with 45.7% stating their beliefs were sometimes respected while 51.8% felt that their beliefs were always respected. 2.5%, however, opinionated that their beliefs were rarely or never respected.

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As seen in Figure 4.3, satisfaction levels are high towards religious/cultural/spiritual freedom and all its aspects. Above 60% of the respondents tended to be satisfied or very satisfied on the freedom to choose religion and beliefs, freedom to practice religion of choosing, freedom to dress in accordance to beliefs and freedom to hold religious/cultural festivals. In breaking down the responses, between 43.7% and 42% of respondents were satisfied towards each aspect of religious/cultural/spiritual freedom, while between 19.3% and 21.6% were very satisfied.

Figure 4.3: Satisfaction levels towards religious/cultural/spiritual freedom 
(N = 3,011)

![Chart showing satisfaction levels](chart.png)

Neutrality remains a significant percentage, being the highest for both freedom to dress and freedom to hold festivals (29.2%). Combined levels of dissatisfaction mostly come in at less than 10%, and the greatest levels of dissatisfaction were observed for freedom to choose, with 7.5% citing dissatisfaction and 2.7% being very dissatisfied. The other aspects show similar trends of dissatisfaction, with a lesser percentage of responses in the realm of extreme dissatisfaction.

**Indicator 4: Freedom of speech**

Perceived levels of satisfaction towards freedom of speech were less satisfactory when compared to the previously discussed indicators. Nevertheless, those who were satisfied reached higher percentages than those who were dissatisfied. Neutral responses were still the most selected option, with 39.6% for freedom to voice political opinions, 40.9% for freedom to voice religious opinions and 42.4% towards freedom to gather (Figure 4.4).
Similar trends of satisfaction levels were noted for the different aspects of freedom of speech. 27.7% of respondents were satisfied regarding freedom to voice political opinions, and 27.7% were satisfied with freedom to voice religious opinions. A higher percentage of respondents expressed satisfaction towards the freedom to gather, at 32.1%. Percentages of those who identified themselves as very satisfied towards their freedom of speech for all three indicators were slightly above 7%.

Dissatisfaction levels were highest for freedom to voice political opinions, with 17.3% being dissatisfied, and 8.3% being very dissatisfied, and these percentages are also comparable for freedom to voice religious opinions.

**Indicator 5: Fundamental human rights**

The study found that 38.8% of the respondents agreed that they were treated free and equal regardless of ethnicity, gender, religion and socio-economic status, while 9.8% strongly agreed with the statement (Figure 4.5). However, 19.9% disagreed, with 5.8% citing a stronger level of disagreement.
Similar levels of agreement were seen for equal protection by the Constitution and the law, with higher levels of strong agreement at 12.1%. The percentage of respondents who disagreed with this statement, however, were lower than that of equal treatment, with 14.2% disagreeing (9.3% disagree; 4.9% strongly disagree).

A higher proportion of rights towards employment veered towards neutrality (37.9%). 34% of respondents were in agreement that they had equal access towards all employment opportunities and 7.6% were in strong agreement. In contrast, 20.5% were of the opinion that they did not possess equal access to employment as anyone else, and from that, 6.4% strongly believed that equal employment remained elusive to them.

**Indicator 6: Governance**

A significant number of respondents interviewed were reluctant to answer questions in relation to satisfaction towards governance, strongly preferring to keep their true opinions private despite the anonymity of the survey. On the other hand, another proportion of respondents expressed apathy towards politics and the current political situation. It was found that the machinations of the political parties had resulted in political fatigue amongst the respondents. These sentiments are assumed to be shared by those who participated in the online survey. As such, significantly higher numbers of average/neutral responses were recorded for indicators of governance.
Figure 4.6: Perceptions towards the performance of the federal government (N = 3,011)

For satisfaction levels towards the performance of the federal government, neutral responses were between 37% (fighting corruption) and 44.4% (competency) for separate aspects, which is also the biggest proportion of responses. Figure 4.6 also shows that respondents were more inclined to rate the federal government’s performance as poor or very poor, as percentages for these responses are markedly higher than those who opinionated that the performance was good or very good. In particularly, the federal government was perceived as being inefficient in fighting corruption, where 23.2% thought their efforts were very poor and 18.5% thought of them as poor, compared to the combined total of 21.3% who rated their performance as at least good. These sentiments echoed Malaysia’s ranking on the Transparency International’s (TI) Corruption Perception Index (CPI) which dropped six places in 2020.

Respondents also tended to be more dissatisfied with the efforts to reduce wealth inequality, with 38% of combined poor/very poor responses in comparison to 20.5% of good/very good responses. It was similarly so when it comes to assessing the achievement in providing educational needs, where 31.3% of the respondents viewed the said achievements as very poor/poor, while a lower percentage of 26.5% recorded more positive ratings of good/very good.

Respondents were also inclined to be more dissatisfied than satisfied towards the federal government’s competency, accountability and transparency. The responses citing poor/very poor performance sat between 33.2% and 38.1% for the aforementioned aspects. In contrast, the percentages for the rating of good/very good were between 21.8% and 23.3%. The management of the Covid-19 pandemic received the highest ratings in this regard, as the only indicator where the number of responses were higher for those who were satisfied/very satisfied (33%) compared to those who were dissatisfied/very dissatisfied (26.1%).

If one were to look at satisfaction across districts, it was clear that the island districts of Timur Laut and Barat Data were markedly more dissatisfied with the federal government’s overall performance, particularly towards fighting corruption, accountability and transparency (Appendix 1: Figure 1). Efforts to fight corruption garnered a 49.9% combined percentage of poor/very poor responses from Timur Laut, and 44% from Barat Daya, and the indicators of accountability and
transparency saw similar percentages in combined totals. The districts on the mainland held a more favourable outlook, with Seberang Perai Selatan observing the highest percentages of combined good/very good responses. Notably, however, the ratings of poor/very poor were still significantly higher.

The overall satisfaction levels for the state government’s performance trended much more positively when compared to the federal government’s. Although neutrality was just as prevalent, the percentage of respondents who rated the state government’s performance as good/very good was decidedly higher than that of the federal government’s. For instance, in terms of combating corruption, the state government received a good rating from 30% of respondents, and a very good rating from 7.9% (Figure 4.7). Only 19% of respondents felt that the state government performed poor/very poor in fighting corruption.

The state government was also perceived to have put in a stronger performance when it comes to competency, accountability and transparency. Close to a third of all respondents were satisfied with the levels of competency, accountability and transparency shown by the state government, rating the performance as good, while approximately 10% considered it to be very good. About 15% of total respondents were dissatisfied, putting in ratings of poor/very poor. As such, it is deduced that respondents were more satisfied than dissatisfied with the state government’s performance in these regards.

**Figure 4.7: Perceptions towards the performance of the state government (N = 3,011)**

The state government was also seen to be more effective in managing the Covid-19 pandemic. Field observations acknowledged that the Penang Lawan Covid-19 team and its corresponding Facebook page had been helpful in communicating information relating to the pandemic and movement restriction orders. 40.2% of the respondents rated the state government’s management as at least good, with 9.3% giving a rating of very good.
As an overall, the current state government managed a rating of satisfaction from 36% of the respondents, and a rating of high satisfaction from 9.9% of the respondents (Appendix 1: Figure 2). The percentage of dissatisfied and very dissatisfied responses were much lower, at 8.7% and 3.5% respectively. The remainder 41.9% of respondents assumed the stance of neither satisfied nor dissatisfied.

When broken down into districts and compared with the federal government’s performance, the opposing scenario was observed. Timur Laut and Barat Daya’s combined satisfied/very satisfied responses for efforts to combat corruption were significantly higher at 44.4% and 41.1% respectively (Appendix 1: Figure 3), while dissatisfied answers were 14.7% and 16.1%. Other indicators were observed to record similar percentages. Seberang Perai Tengah also showed similarly positive trends. However, Seberang Perai Selatan differed from the norm, recording a higher proportion of poor/very poor ratings, particularly for efforts to fight corruption, at a combined percentage of 37.2% (federal government: 32.5%). The district’s satisfaction for the other indicators were also significantly lower compared to the others, but at the same time, it did not diverge considerably from their observations on the federal government.

However, when asked to compare the performance of the Perikatan Nasional (PN) government in comparison to Pakatan Harapan (PH), 43.5% of the respondents professed that they had no opinion one way or another (Figure 4.8). Nevertheless, those who were dissatisfied with PN government were at greater percentages, with 32.2% being dissatisfied/very dissatisfied. In contrast, 24.4% of the respondents were at least satisfied, with 3.2% being very satisfied.

**Figure 4.8: Satisfaction levels towards the performance of Perikatan Nasional in comparison to Pakatan Harapan**

(N = 3,011)
4.2 Domain 2: Economic Well-being

Indicator 1: Income and salaries

More than a third of respondents (35.6%) indicated that they are satisfied/very satisfied with their monthly income, while about 30% stated that they were dissatisfied/very dissatisfied with it (Figure 4.9).

Often our level of income satisfaction depends on what we see around us and where we perceive ourselves in the socio-economic hierarchy (D’Ambrosio and Frick, 2007). Results show that a majority (67.2%) of respondents considered themselves and/or their family as wealthy as most people within their community (Figure 4.10). A majority (41%) of those who were not satisfied with their monthly income perceived themselves as being extremely or a little poorer than most within their community; it should be noted that perceiving a lower relative income in comparison with others tends to lead to lower life satisfaction and happiness (Yu, 2020).

Figure 4.9: Satisfaction levels towards monthly income (N = 2,420)

Note: 591 respondents who had no monthly income (e.g. students and retirees with no pension) are excluded.
Figure 4.10: Perception and comparison of wealth against others within the same community
(N = 3,011)

The Covid-19 pandemic has left private economies and businesses counting the costs as
governments struggled with lockdown measures to contain the spread of the virus. Many people
lost their jobs or saw their incomes cut. In this study, while a majority (53.3%) of respondents
asserted that Covid-19 had no impact on their income, about 30.2% stated that they were
adversely affected by the pandemic and movement control order (Figure 4.11), with blue-collar
and service workers (32%) being more affected than high-skilled and white-collar workers
(25.8%). This is consistent with the impact of Covid-19 on their employment and hours worked.
Overall, about 10.4% of respondents said they were laid off or lost their jobs due to the coronavirus
outbreak. Nearly 30.5% had to reduce their hours or take a pay cut (Appendix 1: Figure 4).

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9 A white-collar worker is a person who performs professional, desk, managerial or administrative work,
while a blue-collar worker is a person who performs manual labour.
Figure 4.11: Effects of the Covid-19 pandemic/movement control order on income (N = 2,420)

Note: 591 respondents who had no monthly income (e.g. students and retirees with no pension) are excluded.

**Indicator 2: Household expenditure**

Respondents were asked to rate their satisfaction levels towards spending on living expenses across nine aspects: mortgage/rent, food (dining out), entertainment, groceries, transportation, shopping, communication, utility bills, and health (Figure 4.12). Results show that satisfaction ratings were highest for expenditure spent on food (dining out) (52.6%), groceries (52.1%) and communication (phone, internet) (49.6%), and lowest for mortgage/rent (36.9%). About 23.2% of respondents reported being dissatisfied/very dissatisfied with their mortgage/rent. According to the Household Expenditure Survey 2019, housing cost (mortgage and rent cost) is the highest (20.7%) contributor to overall household expenditure in Penang.
Figure 4.12: Satisfaction levels towards spending on living expenses

Overall, on average, women (46%) reported a slightly higher level of satisfaction with living expenses than men (41.5%) (Appendix 1: Figure 5). Besides income and wages, consumers’ expenditure is influenced by inflation, interest rate, taxes, saving rates and availability of finance among others.

Indicator 3: Financial security

Results indicate that 75.6% of respondents are currently holding different types of household debt, with vehicle (60.6%) and housing (43.1%) debts being the main drivers (Figure 4.13). Respondents were asked if they were comfortable with their current levels of debt. Nearly 37% of respondents stated that they were uncomfortable/very uncomfortable and 23.3% reported being comfortable/very comfortable (Figure 4.14). Women (37%), older adults (>30 years; 37.2%) and lower-income groups (monthly income of <RM5,000; 40.6%) were more likely to be dissatisfied with their current levels of debt (Appendix 1: Figure 6) than men (36.1%), youth (15-30 years; 35.7%) and higher-income groups (monthly income of >RM11,000; 14.8%). Given this finding, financial policies should focus on household debt since that can affect consumers’ spending, confidence and financial distress. High household financial assets help mitigate the vulnerability from household debt.
An important component of financial resilience is savings. As illustrated in Figure 4.15, 16.2% of those surveyed did not have any savings and about 4% of them would only be able to survive for less than one month if their incomes were cut off. More than half of the respondents would be unable to sustain for more than three months upon loss of income. As it was, 34.4% of respondents could survive for more than three months, while 24.5% for one to three months, after
losing their incomes. A combined percentage of only 18.2% of respondents could comfortably survive for more than a year (9.8% one to two years; 4.3% two to ten years; 4.1% more than ten years). Overall, approximately 40% of respondents were not satisfied with their current level of savings and only 26% reported being satisfied with it (Figure 4.16).

**Figure 4.15: Level of savings for sustainment upon immediate loss of income (N = 3,011)**

- Less than one month: 4.0%
- One to three months: 24.5%
- Three months to a year: 16.3%
- One to two years: 9.8%
- Two to ten years: 4.3%
- Ten years and above: 4.1%
- No savings/no income: 16.2%
- Unsure: 7.1%
- Refused to answer: 12.2%
- Other answers: 1.6%

*Note: Other answers include answers that do not specify a time limit (e.g. "have a little bit", "enough", "can survive").

**Figure 4.16: Satisfaction levels towards levels of savings (N = 3,011)**

- Very dissatisfied: 23.2%
- Dissatisfied: 23.0%
- Neutral: 36.3%
- Satisfied: 14.6%
- Very satisfied: 2.9%
**Indicator 4: Asset ownership**

To better describe individual welfare, respondents were asked to identify their housing status as well as the number of vehicles owned by them. Owning a house is still an important goal for many Malaysians especially for the lower income groups as it is an effective means of building wealth and providing financial security.

Approximately 40% of respondents owned their homes, with men (44.1%) more likely to own a house than women (35.5%). There were also large differences in house ownership rates by household income. Only 39.6% of low-income households owned their homes, compared to 71.3% of high-income households (Appendix 1: Figure 7). In terms of vehicle ownership, the vast majority of working age respondents (15-64 years; 85.8%) at least owned a motorcycle or a car.\(^\text{10}\)

The majority of respondents indicated that owning assets was either important (49.4%) or very important (27.6%) to them (Figure 4.17).

**Figure 4.17: Perceptions of importance towards asset ownership **

<table>
<thead>
<tr>
<th>Importance Level</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very important</td>
<td>49.4%</td>
</tr>
<tr>
<td>Important</td>
<td>27.6%</td>
</tr>
<tr>
<td>Neutral</td>
<td>18.5%</td>
</tr>
<tr>
<td>Unimportant</td>
<td>2.4%</td>
</tr>
<tr>
<td>Very unimportant</td>
<td>2.1%</td>
</tr>
</tbody>
</table>

**Indicator 5: Employment opportunities**

As presented in Figure 4.18, about 41.4% of respondents were satisfied/very satisfied with their current employment and only 20% were dissatisfied/very dissatisfied with their job. Men (42.6%) and older adults (>30 years; 42.9%) were more likely than women (40.3%) and youth (17-30 years; 39.3%) to report being satisfied with their current employment (Appendix 1: Figure 8).

Pay, job security, career development and engagement at the workplace all shape the degree to which employees are satisfied. About 36.5% of those currently working were satisfied with the security of their job and only 21.6% were not satisfied. In terms of engagement conditions at the workplace, a high percentage of respondents reported that they were satisfied with their relationships with colleagues (50%) and supervisor (45%). In addition, 36% of the surveyed

\(^{10}\) Ownership where students are concerned might be a misconception as they most probably do not own their vehicle themselves.
respondents indicated that they were satisfied with the training and development opportunities provided by employers.

The lowest percentage of satisfaction was seen in job opportunities; nearly one-third (30.2%) of respondents were not satisfied with the availability of job opportunities. A great number of those who were not satisfied stated that lack of experience, lack of skills, as well as mismatch of skills and occupations were the main difficulties always or sometimes faced by them while seeking a job (Figure 4.19). Upon further examination, it was found that mismatch of skills/occupation, lack of experience and lack of skills were most experienced by the respondents when job-searching.

![Figure 4.18: Satisfaction levels towards employment and opportunities](image-url)

Note: “Not applicable” responses are taken out and not calculated in the percentages presented.

![Figure 4.19: Perception of difficulties faced while seeking employment](image-url)

Note: “Not applicable” responses are taken out and not included in the percentages presented.
**Indicator 6: Social and economic mobility**

As presented in Figure 4.20, the majority of respondents (60.7%) agreed that they were more educated in comparison to their parents. About half of the respondents (53.7%) believed that they had more employment opportunities compared to their parents at the same stage in life. In recent decades, there has been a rapid growth of higher education, which has strengthened the new generation’s power to compete in the job market. Yet, this has not necessarily helped young people to obtain their desired job. It is because higher educational qualifications have also increased young people’s expectations of the level of job that they can get. In addition, the growth in the job market has failed to match the rapid expansion of higher education. A better career often means better pay. The more one earns, the more one can spend, consume and accumulate. About 46.8% of those surveyed stated that their purchasing power was stronger in comparison to their parents at the same stage of life, while 18.6% reported the opposite.

![Figure 4.20 Perceptions towards social and economic mobility (N = 3,011)](image)

**4.3 Domain 3: Environmental Sustainability**

**Indicator 1: Environmental conservation**

There is a close connection between humans and nature. Previous studies show that being exposed to green natural environments improves mental well-being, reduces stress, and increases positive emotions (White et al., 2019). Hence, it is essential for humans to sustainably
manage and protect their natural environment and resources. As it stands, a vast majority of respondents (42.5%) were neither satisfied nor dissatisfied with the overall environmental conversation in Penang (Figure 4.21).

Satisfaction ratings were highest for water conservation (44.2%), and lowest for sustainable and balanced development (38.9%). Yet, the highest dissatisfaction was reported for forest and hill conservation (20.2%) with men (18.7%) and older adults (24.2%) being more dissatisfied than women (12.7%) and youth (15.5%). Breaking the survey down by district of residence, the highest dissatisfaction rates with forest and hill conservation were found in Seberang Perai Selatan (30.6%) and Timur Laut (22.8%) (Appendix 1: Figure 9). Efforts with regard to disaster management saw the lowest dissatisfaction levels (13.0%); however, this indicator also recorded a higher proportion of neutral responses.

**Figure 4.21: Satisfaction levels towards environmental conservation for Penang (N = 3,011)**

![Satisfaction levels graph]

**Indicator 2: Environmental issues and awareness**

The most important environmental issues in Penang are air and water pollution, flash floods, waste management, and landslides. In general, the respondents had moderate perceptions towards the severity of environmental issues within their community. More than half of the surveyed respondents agreed that air pollution (53.1%), river or water pollution (51.4%) and waste management (51.3%) were the major environmental issues in their community, while a lower percentage reported that the loss of agricultural land (41.4%) and reclamation (43.6%) were the main concerns in their living area (Figure 4.22). On the other hand, the loss of agricultural land (20.3%) and reclamation (18.9%) represented the environmental issues that respondents were least concerned with.
Figure 4.22: Perceptions towards severity of environmental issues within own community
(N = 3,011)

<table>
<thead>
<tr>
<th>Issue</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>River pollution</td>
<td>34.70%</td>
</tr>
<tr>
<td>Noise pollution</td>
<td>34.74%</td>
</tr>
<tr>
<td>Marine and coastal pollution</td>
<td>35.02%</td>
</tr>
<tr>
<td>Air pollution (e.g. haze)</td>
<td>34.84%</td>
</tr>
<tr>
<td>Landslides</td>
<td>36.71%</td>
</tr>
<tr>
<td>Waste management</td>
<td>33.66%</td>
</tr>
<tr>
<td>Inadequate green spaces and access to it</td>
<td>37.11%</td>
</tr>
<tr>
<td>Reclamation</td>
<td>37.50%</td>
</tr>
<tr>
<td>Flash floods</td>
<td>35.19%</td>
</tr>
<tr>
<td>Loss of agricultural land</td>
<td>38.33%</td>
</tr>
</tbody>
</table>

Note: “Not applicable” responses are taken out and not calculated in the percentages presented.

Indicator 3: Environmental policies

Respondents were asked to identify their satisfaction levels towards government policies for environmental protection. A great majority of respondents indicated that they were either satisfied or very satisfied with current government policies towards a greener and more sustainable city, with the no plastic bag campaign and no single-use plastics being rated the highest (Figure 4.23). Concurrently, the efforts to clean up the state’s rivers and seas garnered the lowest percentage of satisfied responses (43.5%) and the highest percentage of dissatisfied responses (20.7%).

Overall, more than half the respondents (54.2%) stated that they were satisfied or very satisfied with the efforts being taken to protect the environment and promote sustainable living (Figure 4.24).
Figure 4.23: Satisfaction levels towards government policies for environmental protection

- Cleaning up Penang rivers and seas: 35.94%
- No Plastic Bag Campaign: 43.66%
- No Single Use Plastics (e.g. straws, plastic bottles): 40.51%
- Free CAT bus services: 40.80%
- Reduce, Reuse, Recycle, Rethink and Reinvent (5R): 40.52%

Figure 4.24: Satisfaction levels towards actions taken to protect the environment

- Cleaning up Penang rivers and seas: 35.94%
- No Plastic Bag Campaign: 43.66%
- No Single Use Plastics (e.g. straws, plastic bottles): 40.51%
- Free CAT bus services: 40.80%
- Reduce, Reuse, Recycle, Rethink and Reinvent (5R): 40.52%

Indicator 4: Eco-friendly behaviours

A majority of respondents had positive attitudes towards eco-friendly actions. More than half of respondents always or most of the time conserve water and energy, segregate waste and reuse material (Figure 4.25). The most significantly different trend of responses is seen for visiting green spaces, with the highest percentage of responses for “never” (7.6%) and “sometimes” (35.9%), and the lowest percentage seen for “most of the time” (33.5%) and “always” (16.0%). Moreover,
respondents with higher education levels, higher age and higher household incomes reported the highest levels of eco-friendly behaviour (Appendix 1: Figure 10). No significant difference was discovered when responses were compared by gender. Better awareness and knowledge about environmental issues and its consequences could lead to higher involvement in environmentally responsible behaviour.

Figure 4.25: Frequency of eco-friendly actions

<table>
<thead>
<tr>
<th>Action</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reuse materials (e.g. plastics bottles, plastic bags and tins, etc.)</td>
<td>44.87%</td>
</tr>
<tr>
<td>Segregate waste</td>
<td>41.32%</td>
</tr>
<tr>
<td>Conserve energy</td>
<td>45.73%</td>
</tr>
<tr>
<td>Conserve water</td>
<td>46.93%</td>
</tr>
<tr>
<td>Visit green spaces and nature reserve (e.g. Sia Boey, Penang Hill, etc.)</td>
<td>43.84%</td>
</tr>
</tbody>
</table>

4.4 Domain 4: Liveability and Social Well-being

Indicator 1: Housing

From the survey results, it is observed that approximately 50% or above of all respondents were at least satisfied with their housing conditions, in accordance with different spectrums (Figure 4.26). However, it must be noted that neutrality was rather prevalent, where between 32.8% and 24.9% of respondents gauged themselves to be not yet satisfied, or not wholly dissatisfied towards their housing conditions. In looking at districts, it is found that Seberang Perai Utara recorded high satisfaction levels and low dissatisfaction levels for all aspects of housing, and dissatisfaction levels were the lowest among all districts (Appendix 1: Figure 11). On the other hand, Seberang Perai Selatan mostly saw higher dissatisfaction levels and lower satisfaction levels when compared to the rest of the districts. However, the percentage of neutral responses for the aforementioned district also tended to trend higher.

State-wide, higher percentages of respondents were satisfied with the maintenance and density of their residences, compared to those who were dissatisfied. For instance, 43.5% of respondents
were satisfied, and 9.8% were very satisfied with the maintenance of their housing, in contrast to the 11.8% and 3.2% that were dissatisfied and very dissatisfied respectively. A similar trend is observed for satisfaction levels towards density, where the results also showed that those who were satisfied with the maintenance of housing were usually satisfied with the density of housing as well.

In terms of accessibility from the places of residence, accessibility to food garnered the highest levels of satisfaction, with 46.1% being satisfied and 19.2% being very satisfied. Dissatisfaction levels were also the lowest for food access, at a combined total of 9.8% for responses indicating dissatisfaction and extreme dissatisfaction. 45.7% of the respondents were also satisfied with their access to public services of schools and hospitals (and so on), with 15.4% being very satisfied.

Figure 4.26: Satisfaction levels towards housing conditions and accessibility (N = 3,011)

Dissatisfaction levels were higher regarding accessibility to parks/green spaces and public transport, with the latter gathering a higher percentage; dissatisfaction levels for accessibility to public transportation (17.4%) was highest across the six aspects of housing. Even so, the percentage of satisfied/very satisfied responses were still significantly greater. This shows that the majority of the respondents were at least satisfied with their accessibility to necessities of food, public services and so on, and it also indicated that these necessities were considered readily available.
**Indicator 2: Family and community well-being**

Figure 4.27 shows that the respondents’ satisfaction levels towards family interactions were highly positive. The percentage for respondents citing themselves to be at least satisfied were approximately 70%. Trust levels between family members gathered the highest percentage of satisfied/very satisfied responses, at 42.5% and 30.7% respectively, with a similar trend observed for support from family members. Comparatively, respondents were a little less satisfied with their time spent together with family members, where the percentage of “very satisfied” responses were a little more than 5 percentage points lower than the other two indicators.

![Figure 4.27: Satisfaction levels towards family interactions (N = 3,011)](chart)

Less than 10% of the respondents were outwardly dissatisfied with their familial interactions. Dissatisfaction levels were the highest with regards to time spent with family members, where 6.7% were dissatisfied and 3.2% were very dissatisfied. Trust levels saw the lowest percentage of dissatisfaction at 7.5% but did not differ largely from the two other aspects. Neutral and indifferent responses for all indicators were between 19.2% and 20.3% of overall respondents.

When compared to family interactions, satisfaction levels for community interactions are seen to be lower (Figure 4.28). Relationship with neighbours was the only aspect where satisfied responses were higher than neutral responses, at 42.6%. Additionally, the rating of “very satisfied” was the highest (8.5%) for connections with neighbours.

Satisfaction levels towards participation in community activities and trust between community members were similar, at 35.5% and 37.6% for satisfied and 6.9% and 6.5% for very satisfied, respectively.
Dissatisfaction levels are noted to be the highest for perceptions towards the involvement of elected representatives in the community. From field observations, it was found that respondents expected their respective elected representatives to be more helpful and communicative towards their constituents particularly in the trying times of the pandemic. Even so, the percentages of those who were dissatisfied were still lower than those who were neutral or satisfied. A combined total of 33.5% of respondents were at least satisfied with the involvement of elected representatives while 23% were dissatisfied, with 8.1% being very dissatisfied.

**Indicator 3: Culture and heritage**

A majority of the respondents placed importance on the tradition of celebrating cultural festivals, with 48.9% rating it as important and 32.3% rating it as very important (Appendix 1: Figure 12). 15.7% were neutral towards the celebration of festivals and a small percentage of 3.1% deemed it as unimportant/very unimportant.

In terms of the satisfaction levels towards the state government’s efforts to celebrate cultural festivals, Figure 4.29 shows these to be generally high across all types of different festivals. Chinese festivals garnered the highest percentage of satisfaction levels; the discrepancy between Malay and Indian festivals in comparison were hardly considerable. The percentage of those who were very satisfied with the efforts shown were at least 20.3% for Deepavali and 26.2% for Hari Raya gatherings. Dissatisfaction levels for all festivals were below 10%. The percentage of neutral responses for all festivals were between 24.4% and 31.1%.
In correlating the importance of celebrating festivals to satisfaction levels of the state government’s efforts, approximately 72.9% of those who rated it important/very important to celebrate traditions were at least satisfied with the efforts taken, while 20.2% were neutral and 6.9% were dissatisfied/very dissatisfied. Similar trends in dissatisfaction were observed for those who were neutral or did not place importance in the celebration of traditions. However, neutrality trended slightly higher.

With George Town being a certified UNESCO world heritage site, the measurement of Penangites’ satisfaction towards conservation efforts is an important indicator. At 51%, more than half the respondents were at least satisfied with the efforts to protect and conserve the heritage sites in Penang, with 15.6% being very satisfied (Figure 4.30). 26.6% of respondents were mostly indifferent, while only 6.9% rated themselves to be dissatisfied/very dissatisfied.
Figure 4.30: Satisfaction levels towards the protection and conservation of heritage sites (N = 3,011)

Indicator 4: Safety and security

As illustrated in Figure 4.31, the perception of community safety was considered high among the respondents. 51.7% felt safe within their communities while 11.2% felt very safe. Responses citing feeling unsafe/very unsafe were 6.6%, with only 1% expressing strong feelings of vulnerability with regards to safety.

In terms of satisfaction with regards to the availability of safety measures within the community, 70.5% of respondents were satisfied while 10.3% were dissatisfied. The remainder 19.3% did not profess a direct opinion.

Figure 4.31: Perceptions of safety within the community (N = 3,011)
Despite a majority of respondents stating that they felt safe within their communities, a rather significant percentage were however concerned about crime and social problems in their communities, with 36.6% being concerned and 19.8% being very concerned (Appendix 1: Figure 13). Those who were unconcerned/very unconcerned were at much lower percentages of 12.1% and 1.8% respectively.

In scrutinising the indicators of safety and security measures, Figure 4.32 shows that a majority of the respondents were at least satisfied, with satisfaction towards the availability of public security cameras being the exception. Even so, the percentage of those who were satisfied (36.4% satisfied; 8.2% very satisfied) were significantly higher than those who were not (15.5% dissatisfied; 6.4% very dissatisfied). The satisfaction levels towards the other indicator for public safety, street lamps and illumination, were higher with 49.1% indicating they were satisfied, and 11.7% noting high satisfaction.

**Figure 4.32: Satisfaction levels towards safety and security measures (N = 3,011)**

Respondents were considerably happy with the maintenance of public order and security, with 46.5% stating they were satisfied and 9.7% being very satisfied. Respondents were also similarly satisfied with their access to civil defence services (48% satisfied; 12.3% very satisfied), signifying that they were able to access these services when needed. Dissatisfaction and extreme dissatisfaction levels for these two indicators were much lower, with totals sitting below 12%. Indifferent responses made up approximately one third of the total.
Indicator 5: Cleanliness

In evaluating indicators of cleanliness, respondents were most satisfied with cleanliness in public spaces such as hawker centres, parks and sidewalks. Figure 4.33 specifies that 39.4% of the surveyed respondents were satisfied while 4.9% were very satisfied. Specifically for districts, Seberang Perai Utara consistently saw higher levels of satisfaction and lower levels of dissatisfaction across all aspects of cleanliness when compared to other districts (Appendix 1: Figure 14).

![Figure 4.33: Satisfactions levels towards cleanliness in Penang (N = 3,011)](chart)

Overall, dissatisfaction levels were considerably high for cleanliness in Penang, especially for public toilets, with 24.8% being dissatisfied and 12.1% being very dissatisfied. Similar levels of dissatisfaction were also observed for cleanliness in rivers and seas as well as for the sewage systems. Respondents on the mainland were more satisfied compared to the island. (Appendix 1: Figure 4).

Approximately half the respondents were either satisfied or very satisfied with the maintenance of cleanliness by the city councils – 45.8% stated they were satisfied and 5.2% were very satisfied (Figure 4.34). A collective total of 15% of responses were recorded as dissatisfied or very dissatisfied. Interestingly, these percentages of dissatisfaction were lower when compared to the individual indicators of cleanliness from Figure 15 (Appendix 1). This suggests that respondents were more satisfied when rating the overall cleanliness of Penang.
**Indicator 6: Urban connectivity**

About 89.9% of the respondents cited a personal vehicle (cars, motorcycles and so on) as their primary mode of transportation; 6.2% used public transport primarily while 3.7% utilised ride-sharing services such as Grab. However, 13.6% of the respondents who travelled predominantly with private vehicles also cited public transportation as their preferred main mode of transportation, with a small number of responses citing a preference for LRT and/or MRT.

With the excessively high preference for private vehicles as a main mode of transportation, it can be surmised that a significant proportion of the respondents did not often use public transportation, hence the high neutral ratings. Nonetheless, satisfaction levels were significantly higher than dissatisfaction levels. Interestingly, satisfaction levels were significantly higher, for all indicators, for respondents from Seberang Perai Utara and Seberang Perai Tengah—with the percentage of satisfied responses being consistently above 40% (Appendix 1: Figure 15).

Respondents were most satisfied towards the safety aspect of public transportation, with 34.8% in satisfied responses and 6.2% in very satisfied responses. The other indicators garnered similar percentages in satisfaction levels (Figure 4.35).
Dissatisfaction levels were the highest for the frequency of public transport services, with 15.3% being dissatisfied and 5.7% being very dissatisfied. In this sense, the frequency of public transportation was marked by the respondents as the indicator most needing improvement. However, the dissatisfaction levels for the other indicators of overall connectivity, efficiency and accessibility were not far behind. Timur Laut, in particular, recorded high percentages of dissatisfaction and lower percentages of satisfaction for efficiency and frequency, when measured against the other districts (Appendix 1: Figure 16). It can be construed that significant improvement towards public transportation will undoubtedly increase its usage in addition to increasing liveability in the state.

Responses regarding satisfaction towards urban and road connectivity were more varied when compared to responses rating public transportation. Figure 4.36 shows that the highest rate of responses for indicators of urban connectivity was for the neutral option, with the exception of the road network and connectivity. Road network and connectivity recorded the highest level of satisfaction (satisfied 42.6%; very dissatisfied 6.9%) and lowest dissatisfaction levels (dissatisfied 13.2%; very dissatisfied 3.3%) compared to other aspects of urban connectivity. However, it is found that respondents in Seberang Perai Selatan were considerably dissatisfied with road connectivity. With 36% in dissatisfied/very dissatisfied responses, these percentages outweighed those who were satisfied (Appendix 1: Figure 6).
Satisfaction levels were higher than dissatisfaction levels towards walkability and pedestrian crossings and availability of cycling lanes, with combined percentages of satisfied and very satisfied responses at 34.6% and 33.2% respectively. It is noted that Seberang Perai Selatan again had the highest percentage of dissatisfied respondents for these two indicators.

Respondents were however more dissatisfied than satisfied when it came to appraising road conditions, traffic conditions and availability of parking spaces. The percentage of dissatisfied responses towards road conditions was slightly higher (1.3%) than those who were satisfied. But when broken down to districts, we see that respondents from Barat Daya (37.7%) and Timur Laut (39.5%) recorded higher levels of dissatisfaction when compared to the other districts. In contrast, Seberang Perai Utara (39.5%) and Seberang Perai Tengah (37%) had higher percentages of satisfied road users.

Pertaining to traffic jams, 29.8% were dissatisfied and 10.3% were very dissatisfied. This trend is seen for all five districts, with Barat Daya seeing the highest percentage of dissatisfaction and the lowest percentage of satisfaction. Availability of parking spaces was also considered insufficient, with combined dissatisfied and very dissatisfied responses at 26.7% and 11.6% respectively. Respondents in Timur Laut (43.3%) and Barat Daya (48.7%) were significantly more dissatisfied.

It can be assumed that improvement of public transportation will lead to increased levels of satisfaction towards urban connectivity. Increased usage of public transportation will result in fewer vehicles on the road, hence reducing the stagnation of traffic and the need for parking spaces.
**Indicator 7: Digital connectivity**

In the present study, the percentage of respondents who cited they did not have access to the internet was 3.3% of the overall respondents. However, seeing that some of these “no” answers were collected from the online survey, some respondents could have misconstrued this question as having a direct home connection to the internet, and did not include their access from mobile phones and/or mobile data. Nevertheless, based on the responses collected, 43.4% stated that they could not afford the access, 27.3% felt that it was unnecessary to have access, while 29.3% cited availability of connection to be a problem.

Respondents were most satisfied with the access and stability of digital connectivity, with 37.1% being satisfied and 13.7% being very satisfied (Figure 4.37). However, Seberang Perai Selatan observed notably higher levels of dissatisfaction concerning access and stability (Appendix 1: Figure 17). Satisfaction towards speed and affordability were at slightly lower percentages, with percentages for satisfied/very satisfied responses at 46.3% and 46.1% respectively.

![Figure 4.37: Satisfaction levels towards digital connectivity (N = 2,911)](image)

Note: 100 respondents without internet access are excluded.

Perception towards internet speed recorded the highest percentage of dissatisfied responses (20.1% dissatisfied; 8.8% very dissatisfied), however, dissatisfaction levels towards access/stability and affordability were slightly lower. Overall, respondents were more satisfied than dissatisfied with the state’s digital connectivity. Among all districts, respondents in Seberang Perai Utara, in particular, seemed most satisfied with the digital infrastructure (Appendix 1: Figure 7).

Figure 4.38 displays that 13.7% of respondents do not use the state government’s online procurement services. For those who do, 39% were satisfied and 9.6% were very satisfied. 29.3% maintained a mostly neutral stance. The percentage for those who were dissatisfied and very dissatisfied were significantly lower, at 5.9% and 2.7% respectively. As it stands, the respondents were mostly satisfied with the current state of governmental online procurement services.
Figure 4.38: Satisfaction levels towards the state government’s online procurement services  
(N = 3,011)

Indicator 8: Health

The pattern for satisfaction towards health indicators trended strongly. The respondents’ satisfaction towards the surveyed aspects of health were considered high, as satisfied responses were over 50% of total responses (Figure 4.39). Satisfaction towards wellness was the highest, but as mentioned, the differences were barely discernible. Neutral responses were the highest for recovery rate of illness (30.2%), and lowest for physical health (27.4%).

Figure 4.39: Satisfaction levels towards aspects of health  
(N = 3,011)
The percentage of dissatisfied and very dissatisfied responses for health indicators were below 10% when combined, where the highest levels of dissatisfaction was towards physical health (7% dissatisfied; 1.6% very dissatisfied). On the other hand, the other three indicators showed lower but similar levels of dissatisfaction, totalling approximately 7% of total responses.

For indicators of exercise and diet, the consistency of meal times recorded the highest level of satisfaction. With 44.8% of respondents citing satisfaction and 8.4% citing high satisfaction, more than 50% of the respondents were happy with the timing they kept for mealtimes. Figure 4.40 further shows that satisfaction with balance of nutrition in the diet was lower, standing at 40.9%, with the percentage of very satisfied respondents at 7.7%. Dissatisfaction levels for balanced diet were also slightly higher than those for consistency of mealtimes.

**Figure 4.40: Satisfaction levels towards physical exercise and diet**  
(N = 3,011)

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Very dissatisfied</th>
<th>Dissatisfied</th>
<th>Neutral</th>
<th>Satisfied</th>
<th>Very satisfied</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consistency of exercise</td>
<td>17.2%</td>
<td>5.3%</td>
<td>0%</td>
<td>36.3%</td>
<td>44.8%</td>
</tr>
<tr>
<td>Consistency of meal times</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>100%</td>
</tr>
<tr>
<td>Balance of nutrition in diet</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>100%</td>
</tr>
</tbody>
</table>

In terms of percentages, consistency of exercise garnered the highest levels of dissatisfaction. 17.2% of respondents maintained they were dissatisfied and 5.3% stated they were very dissatisfied with their schedule of physical exercise. Even so, satisfaction levels were still comparatively higher.

The number of neutral responses also trended higher when compared to other aspects of health, although not considerably so, showing that more than a third of the responses were neither satisfied nor dissatisfied when it comes to their physical health. Nevertheless, the percentage of respondents who were happy and satisfied were significantly higher.

**Indicator 9: Well-being and quality of life**

For this study, seven indicators are used to measure the satisfaction levels of respondents towards aspects of life. A majority of the respondents were at least satisfied with the measured aspects of life, with “satisfied” being the most chosen response for all aspects (Figure 4.41). The satisfaction towards family relationships was the highest, with 44.9% being satisfied and 27.1% being very satisfied.
Health is the second indicator that gathered the highest rate of satisfied (47.2%) and very satisfied (15.2%) responses. The respondents were also almost equally satisfied with their environment and surroundings, but dissatisfaction levels were slightly lower when compared to health (neutral perceptions were higher for health). These three indicators – family relationships, health and environment and surroundings – recorded markedly higher percentages of satisfied responses compared to the other indicators.

Figure 4.41: Satisfaction levels towards aspects of life
(N = 3,011 with exception N = 2,616 for job, N = 2,680 for work-life balance)

Satisfaction towards jobs and careers saw the lowest percentage of at least satisfied responses, but with a combined total of 54.4% (satisfied 41.2%; very satisfied 13.2%), it was almost equivalent to satisfaction levels for work-life balance, diet and sleep. Dissatisfaction towards sleeping habits was the highest, at a collective percentage of 15.1% (dissatisfied 11.8%; very dissatisfied 3.3%).

Figure 4.42 notes that a high percentage of respondents recorded a positive perception towards their present quality of life. 54.8% of the respondents rated their life as “good” while 9.9% of respondents were very satisfied, indicating that 64.7% of all respondents were at least happy with their current state of life. A neutral stance for their present condition of life was found among 28.4% of the respondents. The percentage of respondents unhappy with their present quality of life was low, with 5.6% saying their life state was poor and 1.3% saw their current condition of life as very poor.
Based on Figure 4.43, 41.5% of the respondents felt that there was no difference in their quality of life before and during the pandemic. In looking at the negative effects of the pandemic, 35% of the respondents found their life to be better pre-pandemic, while 8.9% were of the opinion that their quality of life was significantly better.

Perhaps rather unexpectedly, a collective percentage of 14.6% of the respondents actually found their condition of life to be worse before the pandemic.

One of the reasons for this may be that some respondents were seeing improvement from the angles of a better work-life balance, with stay/work from home orders in place. 49% of those who rated their lives as worse before the pandemic were involved in occupations that had a high possibility of being affected by the work-from-home order (managers, professionals,
technicians/associate professionals, clerical workers), meaning that there was capacity within their jobs which allowed them to work remotely. Another 11% of these responses were students, who may be happier and more satisfied with the learning-from-home model of learning that was implemented because of the pandemic.

Another possible explanation may be that respondents were happier that they were able to spend more time with family. It was found that approximately 60% of those who felt that their quality of life was better with the pandemic also gave high ratings (satisfied/very satisfied) for their satisfaction towards family interaction. Staying at home meant more opportunities to communicate and spend time with families, which may pose as a reason why some respondents were more satisfied with their present life condition despite the pandemic.

Across the five conditions of respondents’ present state of life, those who rated it neutral, good or very good most frequently picked “no difference” as their point of assessment (Figure 4.44). However, a high percentage of the respondents with a current rating of “good” for their present quality of life professed that their life was better before the pandemic – 39.1% stated that it was better, and 8.4% stated it was much better. Similar sentiments, that is, having a better life pre-pandemic, were seen for those who were currently enjoying a very good quality of life, but percentages differ, where 30.8% enjoyed better conditions and 19.4% enjoyed much better conditions. The percentages of respondents with an at least good quality of present life that rated their pre-pandemic lives as being worse were significantly lower.

Figure 4.44: Perception towards quality of life before the pandemic/MCO as compared to present quality of life 
(N = 3,011)

Interestingly, a significant percentage of those who rated their current state of life as poor/very poor declared their lives to be worse or much worse before the pandemic, where the percentages were significantly higher than for those who were in better states in life. In fact, a higher percentage of respondents with a current life rating of “poor” opined that their pre-pandemic quality of life was worse (32.7% worse, 6.0% much worse), and they were more satisfied with
their present quality of life. Even so, it must be noted that they remained dissatisfied. In contrast, 27.5% of respondents with the same life condition (“poor”) felt that their lives were better before the pandemic. Concurrently, 32.5% of those with “very poor” assessment of their current lives also professed that their lives were much better previously, but 50% felt that the pandemic had worsened their present quality of life.

The scale presented to measure perceptions of happiness is a bipolar scale that is similarly utilised by other studies, where zero signifies complete unhappiness, with a neutral mid-point rating of neither happy nor unhappy, and a score of ten representing complete happiness (OECD, 2013).

When asked to rate their current levels of happiness from 0 to 10, a high percentage of respondents rated their happiness levels on the higher end (7 – 10) of the scale (Figure 4.45). Accumulatively, the respondents who saw themselves as reasonably happy from the scale were 69.4% of total respondents.

Respondents who scored their scale of happiness at five and six, which can be considered as not yet happy or neither happy nor unhappy, were 24.3% of total responses. Unhappy respondents, on the other hand, were a small percentage equalling 9%, with a smaller percentage of respondents at the lower end of the scale (0 to 2).

Examining the data further, it is found that respondents who rated their happiness on the scale of 0 to 2 were on the spectrum of “very poor” and “poor” when indicating their present quality of life (Appendix 1: Table 1), with combined percentages of 66% to 67% for the aforementioned ratings. For respondents with a happiness rating of 3 to 4, these leaned towards “poor” and “neutral” for their current quality of life.

Respondents who tended towards neutrality on their scale of happiness mostly rated their current state of life as neutral as well (rating of 5, 53.6%; rating of 6, 49.3%), but there was also a significant percentage who saw their current life-state as “good”.

For the respondents on the scale of happiness from 8 to 10, more than 80% of these respondents mostly rated their present quality of life as “good” or “very good”.

As an overview, it can be seen that the lower a respondent’s rating was on the scale of happiness, the more they tended to have a poorer present quality of life.
The three main things most frequently cited by the respondents as being an important component of a happy life were health, wealth and family (Table 4.1). These three components recorded significantly higher frequencies compared to the other more commonly listed indicators such as career, friends, safety, food and love.

The respondents rated the importance of each component on a scale from 0 to 10, with 0 being completely unhappy and 10 being completely happy. The figure below illustrates the distribution of ratings across the different components.

**Figure 4.45: Scaling the perceptions of happiness (N = 3,011)**

Note: 0 – 4: completely unhappy – unhappy; 5-6: neither happy nor unhappy; 7-10: happy – completely happy

<table>
<thead>
<tr>
<th>Component</th>
<th>Frequency</th>
<th>Life rating 0-4</th>
<th>Life rating 5-6</th>
<th>Life rating 7-10</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>All</strong> (n=3,011)</td>
<td></td>
<td>(n=190)</td>
<td>(n=733)</td>
<td>(n=2,088)</td>
</tr>
<tr>
<td>Health</td>
<td>1,247</td>
<td>75</td>
<td>257</td>
<td>915</td>
</tr>
<tr>
<td>Wealth 11</td>
<td>1,183</td>
<td>91</td>
<td>401</td>
<td>691</td>
</tr>
<tr>
<td>Family 12</td>
<td>1,025</td>
<td>54</td>
<td>188</td>
<td>783</td>
</tr>
<tr>
<td>Career 13</td>
<td>239</td>
<td>22</td>
<td>61</td>
<td>156</td>
</tr>
<tr>
<td>Friends</td>
<td>223</td>
<td>18</td>
<td>48</td>
<td>157</td>
</tr>
<tr>
<td>Safety</td>
<td>214</td>
<td>12</td>
<td>47</td>
<td>155</td>
</tr>
<tr>
<td>Food</td>
<td>166</td>
<td>8</td>
<td>31</td>
<td>127</td>
</tr>
<tr>
<td>Love</td>
<td>146</td>
<td>11</td>
<td>29</td>
<td>106</td>
</tr>
</tbody>
</table>

11 Wealth indicators include: wealth, wealthy, money, income, salary, financial stability, economic stability
12 Family indicators include: family, spouse, children, parents
13 Career indicators include: job, career, work
Wealth is seen to be more vital for respondents who gave a rating of 0 to 4, followed by health and then family. Respondents with a happiness rating of 5 to 6 also followed the same trajectory of wealth, health and family. However, for respondents who rated themselves from 7 to 10 on the happiness scale, health was the most important indicator while wealth was the least important comparatively.

**Summary of descriptive results**

The survey has comprehensively detailed the results in looking at the life satisfaction among Penangites. It was found that neutral sentiments trended strongly when it comes to satisfaction with regards to most indicators within the domain of Freedom and Governance, specifically political freedom, community and civic participation, freedom of speech, fundamental human rights and governance. In terms of Governance, satisfaction levels were higher towards the performance of the state government in comparison to the federal government's performance. In contrast, religious/cultural/spiritual freedom was the only indicator to gather a higher percentage of satisfied/very satisfied responses.

For the domain of Economic Well-being, it was found that less than half of the respondents rated themselves as satisfied with their monthly income and level of savings. Most respondents also saw themselves as being equally wealthy compared to their peers and community, and held a mostly positive perception towards social mobility. Satisfaction with household expenditure was also at higher levels compared to dissatisfaction levels, except for mortgage/rent where neutral responses were more significant. Asset ownership was mostly deemed important. Neutral responses held the biggest proportion when it came to rating satisfaction with employment opportunities, but relationship with supervisor and colleagues garnered more positive responses.

Within the domain of Environmental Well-being, respondents were found to be mostly neutral towards environmental conservation efforts, but were very concerned towards various environmental issues within their community. On the other hand, the percentage of satisfied responses towards environmental policies and actions taken to protect the environment were higher. A majority of respondents also partook in eco-friendly behaviours in their daily lives.

In the domain of Liveability and Social Well-being, it was found that there were strong sentiments of satisfaction among the respondents for housing conditions, family interactions, community interactions, culture and heritage, safety, health and certain aspects of life. Cleanliness and digital connectivity also scored high on satisfaction levels; however, dissatisfaction levels were higher, compared to the previous indicators. Comparatively, neutral responses took up a more significant percentage of responses when it came to rating indicators of urban connectivity.

A high percentage of the respondents professed to be at an at least good stage of life despite the ongoing pandemic. However, a noteworthy percentage of these respondents also maintained that their quality of life was better before the pandemic. In contrast, a significant proportion of respondents who rated their current state of life as poor/very poor noted their lives to have been better pre-pandemic. Overall, a great number of respondents saw themselves as reasonably happy with their current quality of life.

The responses and sentiments collected with regards to the four domains serve as a basis in constructing the HIP Index.
5.0 Understanding Happiness

This chapter undertakes an in-depth analysis of the HIP Index and discusses the Index as an overall indicator for happiness in Penang. In addition, happiness and its corresponding sufficiencies – in accordance with the Index – will be thoroughly presented per the stratifications of district, gender, age, education level and employment status.

5.1 Overall HIP Index

The HIP Index value is estimated at 0.881. It indicates that about 76.5% of Penangites are happy, and the remaining 23.5% are not-yet-happy. The result shows that the not-yet-happy people still enjoy sufficiency in 49.6% of the weighted indicators on average, meaning that they are happy with nearly half of the indicators on average. Among the not-yet-happy people, 13.7% are narrowly happy and 9.9% are unhappy (Table 5.1). Therefore, the sum of these two figures gives us the Index value. The index value is usually between 0 and 1. The value nearer to 1 is the best, meaning that a great number of people are reasonably happy, and the value nearer to 0 indicates otherwise.

The HIP Index value can increase either by increasing the percentage of people who are happy, or the percentage in which not-yet-happy people enjoy sufficiency. In fact, the Index has a very simple and direct interpretation and is sensitive to important changes in society over time.

<table>
<thead>
<tr>
<th>Categories</th>
<th>Happiness threshold</th>
<th>Headcounts</th>
<th>Average sufficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Happy</td>
<td>≥66%</td>
<td>76.5%</td>
<td>85.8%</td>
</tr>
<tr>
<td>Not-yet-happy</td>
<td>&lt;66%</td>
<td>23.5%</td>
<td>49.6%</td>
</tr>
<tr>
<td>Narrowly happy</td>
<td>50%-65%</td>
<td>13.7%</td>
<td>54.1%</td>
</tr>
<tr>
<td>Unhappy</td>
<td>&lt;50%</td>
<td>9.9%</td>
<td>36.7%</td>
</tr>
</tbody>
</table>

The HIP Index can be broken down according to district, age groups, gender, education, etc. It can also be analysed by each domain and indicator. These functions make the Index a useful tool, especially for policymakers, in finding out where people lack sufficiency and where government policies can focus.
In terms of contribution of each domain to the overall HIP Index, the Liveability and Social Well-being domain (25.8%) contributes the most to the overall HIP Index, followed by Freedom and Governance (25.5%) and Economic Well-being (24.8%), whereas the Environmental Sustainability domain (24%) contributes the least (Figure 5.1). Results indicate that all four domains have made a contribution to the HIP Index, meaning that happy people live relatively balanced lives without any domain being unimportant.

**Figure 5.1 The percentage contribution of each domain to the HIP Index**

The percentage of happy and satisfied people was also calculated for each domain (Figure 5.2). For the domain of Freedom and Governance, about 78.2% of people in Penang have achieved happiness, while 8.6% are considered narrowly happy. Approximately 13.2% of respondents are identified as unhappy in this domain. The percentage of happy people is slightly higher for the domain of Economic Well-being, with 79.1% of respondents identifying as happy and 11.5% as narrowly happy. The percentage of unhappy people is lower compared to the previous domain, at 9.4%.

The percentage of happy people is at comparable levels for the Environmental Sustainability domain, with 76.1% of respondents considered happy. Subsequently, 14.5% are narrowly happy, while 9.3% are unhappy. Last but not least, the domain of Liveability and Social Well-being has the highest percentage of happy people at 79.3%. As for the narrowly happy people, they stand for 7.7% of total respondents while unhappy people totalled 13% overall.
Although all domains contribute almost equally to overall happiness, the sufficiency and happiness structures with respect to the indicators composing each domain vary (Figure 5.3). For the domain of Freedom and Governance, the indicators of community and civic participation and religious/cultural/spiritual freedom see high percentages of sufficiency, at 87.9% and 89.9% respectively, which are among the top five highest percentages of sufficiency. On the other hand, governance (56.9%) is identified as the indicator with the lowest percentage of sufficiency attained within the domain. It also represents the indicator with the second lowest level of achieved sufficiency across all indicators in four domains.

The highest percentage of sufficiency level in the Economic Well-being domain is found to be asset ownership at 97%, in addition to being the indicator that enjoys the highest percentage of sufficiency across all 25 indicators. 77% of the respondents experienced sufficiency in the indicator of employment opportunities, but sufficiency is lower when it comes to income and salaries (68.9%). At 61.1%, financial security emerges as the indicator with the lowest percentage of sufficiency domain-wise, in addition to being among the overall indicators with the least percentage of respondents seeing sufficiency.

In the domain of Environmental Sustainability, eco-friendly behaviours see the highest percentage of respondents attaining sufficiency at 96.4%. On the other hand, only 41.5% of respondents see sufficiency in the indicator of environmental issues and awareness, marking it as the indicator with the lowest percentage of achieved sufficiency, within the domain as well as amongst all indicators.

Most indicators in the Liveability and Social Well-being domain recorded percentages of sufficiency above 80%, with cultural heritage and conservation (90.6%) and well-being and quality
of life (86.6%) being the top two indicators with the highest percentage of sufficiency. Digital connectivity is seen to be on the lower spectrum, with 72.9% of respondents signifying sufficiency. Conversely, cleanliness and urban connectivity reported the lowest percentages of achieved sufficiency, at 63.2% and 61.6% respectively.

As an overall, 72% of the measured indicators reported sufficiency with percentages higher than 70%, whereas 48% of the indicators recorded more than 80% in sufficiency.

**Figure 5.3 Percentage of people who experience sufficiency in each of the indicators**

*Note: The final threshold across the two assets of house and vehicle is applied so that if the respondent possesses sufficiency in either one, then the person is classified as being sufficient in assets overall.*
5.2 Insufficiencies by Indicator

One way to improve happiness is by looking at people who are not-yet-happy and focusing on areas where they lack sufficiency or are deprived. As illustrated in Figure 5.4, the not-yet-happy people seem to be more deprived in all indicators than happy people. The biggest deprivations among the not-yet-happy respondents were found in urban connectivity (80.7%), environmental issues and awareness (80%), and governance (78.6%) indicators. Additionally, insufficiency was also markedly high for cleanliness (73.3%), freedom of speech (68.3%) and financial security (61.9%).

On the other hand, happy people have more insufficiencies in environmental issues and awareness (51.9%), governance (32.2%) and financial security (31.8%). Notably, more than 25% of the happy people saw deprivation for urban connectivity (25.3%) and cleanliness (23.3%).

Conversely, both happy and not-yet-happy respondents were found to be least deprived in the indicators of asset ownership (happy: 2.4%; not-yet-happy: 4.7%) and eco-friendly behaviour (happy: 2.5%; not-yet-happy: 7.2%). The gap between the third-ranked most sufficient indicator was significantly different for the two groups. Both groups were third-most deprived when it comes to cultural and heritage conservation, where it stood at 27.4% for not-yet-happy people. However, only 3.5% of happy people saw insufficiency for the aforementioned indicator.
Figure 5.4 Proportion of people with insufficiencies in each indicator by happiness

5.3 Happiness by District

As presented in Figure 5.5, Seberang Perai Utara and Seberang Perai Tengah are home to the highest number of happy people in Penang, at 87.8% and 84% respectively, while the lowest happiness was recorded in Seberang Perai Selatan (57.5%). The proportion of happy people on the island were similar, with 75.1% of happy people in Timur Laut, while Barat Daya recorded 76.6% of happy people. Unsurprisingly, Seberang Perai Selatan observed the largest proportion of narrowly happy people (21.7%) and unhappy people (20.8%), which were significantly higher than for other districts.
By indicators, all districts enjoyed the highest sufficiency in asset ownership and eco-friendly behaviour (Figure 5.6). A great number of people in Timur Laut (68.3%) and Barat Daya (61.5%) lacked sufficiency in environmental issues and awareness. Cleanliness (Timur Laut: 46.3%; Barat Daya: 43%), governance (Timur Laut: 45.5%; Barat Daya: 43.2%) and urban connectivity (Timur Laut: 41.5%; Barat Daya: 43.2%) are other areas in which a higher percentage of people from the Island lacked sufficiency.

Similarly, approximately half of the people from Seberang Perai Tengah (54.9%) and Seberang Perai Utara (47.6%) did not achieve sufficiency in environmental issues and awareness. Financial security is another indicator that they significantly lacked sufficiency (Seberang Perai Tengah: 43%; Seberang Perai Utara: 40.4%). Results show that the biggest deprivations in Seberang Perai Selatan – the district with the highest number of not-yet-happy people – were in freedom of speech (58.1%), governance (52.7%) and environmental issues and awareness (51.2%).

Across domains, the not-yet-happy people in Timur Laut district showed higher contributions to their deprivations from the Liveability and Social Well-being domain (26.4%), while less contributions from Economic Well-being (22.7%) were found for this group (Appendix 2: Table 1 and Figure 1). Freedom and Governance (26%) and Environmental Sustainability (23.7%) contributed the highest and lowest respectively to the deprivations of the not-yet-happy residents in Barat Daya.

In Seberang Perai Utara, the domain of Economic Well-being (27.7%) contributed the most to deprivations of the not-yet-happy people, while Environmental Sustainability (22.7%) was found to have made the lowest contribution. Yet, the not-yet-happy people in Seberang Perai Tengah are more deprived in Liveability and Social Well-being (26.2%) and less deprived in the Environmental Sustainability domain (22.8%). Last but not least, the not-yet-happy respondents from Seberang Perai Selatan were found to have the highest deprivation in the domain of Freedom and Governance (32.5%) and the lowest in the Economic Well-being domain (19.5%).
5.4 Happiness by Gender

Results show that women are slightly happier than men. As illustrated in Figure 5.7, about 76.8% of women are happy and only 9% are unhappy, compared with 76% of men who are happy and nearly 11% who are unhappy.

Across indicators, both male and female respondents do better in asset ownership and eco-friendly behaviour, but worse in environmental issues and awareness. Men achieved significantly more sufficiency in religious/cultural/spiritual freedom, cleanliness and urban connectivity compared to women, while women enjoy higher sufficiency in governance and environmental policies than their counterparts (Figure 5.8). Across domains, the not-yet-happy male respondents
showed markedly higher contributions to their deprivations from Freedom and Governance and fewer contributions from Economic Well-being. Similar results were found among the not-yet-happy females (Appendix 2: Table 1 and Figure 2).

**Figure 5.7 Composition of happiness by gender**
5.5 Happiness by Age Group

The composition of happiness by age group shows that respondents in the age group of 60 and above are happier, followed by the youths (Figure 5.9). Interestingly, the proportion of unhappy people was higher among the people aged 60 and above. At 9.0%, it was 1.4% higher compared to the youths. A higher percentage of not-yet-happy (28.1%) and unhappy people (12.2%), and a lower percentage of happy people (71.9%) were seen among those aged 31-59.

As illustrated in Figure 5.10, age groups of 31 and above remarkably lack sufficiency in the environmental issues and awareness indicator, especially those aged 60 and above, followed by
the governance indicator. Results indicate that youths mainly lack sufficiency in environmental issues and financial security indicators. Across domains, Freedom and Governance (28.3%) contributes the most to the deprivation of the not-yet-happy youth. While, the domain of Environmental Sustainability (22.7%) contributes the least to their deprivation (Appendix 2: Table 1 and Figure 3).

Similarly, the not-yet-happy people among those aged 31-59 were found to have the highest deprivation in the Freedom and Governance domain (27.2%), while the lowest was observed in the Economic Well-being domain (22.2%). The not-yet-happy respondents among the elderly showed higher contributions to their deprivations from the domain of Liveability and Social Well-being (29%) and fewer contributions from Economic Well-being (18.3%).

Figure 5.9 Composition of happiness by age group
5.6 Happiness by Education Level

Although there is no significant difference in happiness by education levels, it was found that the highest proportion of happy people were those with vocational and diploma qualifications (78.3%), followed by the group whose attained educational level was bachelor’s degree and above. On the other hand, respondents with upper-secondary education and lower reported a slightly higher percentage of unhappy people (11%) compared to others (Figure 5.11).

Across indicators, respondents in all educational levels do better in asset ownership and eco-friendly behaviour, but worse in environmental issues and awareness (Figure 5.12). Across
domains, the not-yet-happy respondents with upper secondary and lower education showed higher contributions to their deprivations from the Freedom and Governance domain (28.1%), while fewer contributions from Environmental Sustainability (21.6%) were found for this group (Appendix 2: Table 1 and Figure 4). Freedom and Governance (27.1%) and Economic Well-being (23.8%) contributed the most and the least respectively to the deprivations of the not-yet-happy people with vocational and diploma education levels. Similar results were found among those with bachelor’s degree and above (Freedom and Governance: 27.5%) and Economic Well-being (21.3%).

Figure 5.11 Composition of happiness by education level
Figure 5.12 Percentage of respondents having sufficiency in each indicator by education level

5.7 Happiness by Employment Status

The composition of happiness by employment status indicates that happiness is lower among those who are not employed but looking for employment, and is higher among those who are not employed and those who are not looking for employment, to which mainly students and retirees are members (Figure 5.13). This is certainly expected, as those who do not need to stress about
income and work would feel more comfortable and satisfied compared to the group of people who are unemployed and seeking employment. As such, the proportion of narrowly happy people (21.5%) and unhappy people (14.6%) in this group was significantly higher compared to the employed group (narrowly happy: 15.4%; unhappy: 11.5%) and the not employed and not looking for employment group (narrowly happy: 8.3%; unhappy: 4.8%).

![Figure 5.13 Composition of happiness by employment status](image)

**Figure 5.13 Composition of happiness by employment status**

Note: a) Self-employed and homemakers are included in the employed category.
   b) Students and retirees are included in the not employed and not looking for employment category.

A substantial body of literature shows that there is a positive relationship between employment, income and life satisfaction/happiness (Aysan & Aysan, 2017; Plouffe & Tremblay, 2017). As presented in Figure 5.14, both employed and unemployed respondents significantly lack sufficiency in the environmental issues and awareness indicator, followed by governance. Moreover, a great number of those who are not employed and looking for employment lack sufficiency in income and salaries indicator (60.8%).

Across domains, the Freedom and Governance domain (27.6%) contributes the most to the deprivation of the not-yet-happy employed people while the domain of Economic Well-being (22.5%) contributes the least to their deprivation (Appendix 2: Table 1 and Figure 5). The not-yet-happy people among those not employed and looking for employment were found to have the highest deprivation in Freedom and Governance (26.9%) and Economic Well-being domains (26.6%), while the lowest was observed in the Environmental Sustainability domain (21.6%). Yet, the not-yet-happy respondents among those who were not employed and not looking for employment showed higher contributions to their deprivations from the domain of Freedom and Governance (27.8%), and fewer contributions from Economic Well-being (22.3%).
In conclusion, the HIP Index analysis has shown that the level of happiness can be markedly different when broken down into different stratifications. It is important to consider happiness from different aspects. In recognising the different needs, it is also equally vital to examine the corresponding areas of sufficiency and insufficiency across the four domains and their corresponding indicators. As such, the analysis has also presented a comprehensive picture of sufficiency levels across the identified stratifications.
6.0 The Way Forward

At its core, economic progress and income increment are vital components in determining a country’s development. However, one must not disregard the non-monetary measures of development, and social and political progress must be taken into account on even ground. The overall happiness of the people is dependent upon all aspects of life, and has important implications in enabling a country’s development to be sustainable, inclusive and cohesive. As a concept, happiness is acknowledged to be subjective, as it means different things to different people. One person may see financial security as the most vital component for happiness, while another might place the highest importance on family relationships. At the same time, sufficiency has to be achieved in each domain and aspect of life in the measurement of happiness, as deprivation in any aspect will affect overall happiness.

The HIP Index comprehensively analyses the life satisfaction and sufficiency of Penangites in accordance with the key domains and their different indicators, and provides an overall picture of happiness in Penang. In addition to providing a detailed insight into happiness, the HIP Index also intends to act as a policy tool for policy makers and researchers. The happiness and sufficiency levels in each domain and their corresponding indicators can be considered and scrutinised when it comes to designing different policies so that the areas where people lack sufficiency can be properly addressed and incorporated into policies where possible, as a measure to increase happiness in that particular aspect of life. The insufficiencies of the not-yet-happy people are particularly important, and should be given focus where possible in efforts to increase their happiness.

The government and academia aside, the HIP Index also aims to function as a mechanism and multidimensional tool for other layers of society. Although the government is a critical factor, it is not the sole actor responsible for increasing the happiness of the people. Ultimately, the whole of society including the government, the community as well as the individuals themselves, hold the joint responsibility of increasing the state’s happiness. As the HIP Index shows, increasing overall happiness by increasing sufficiency across different domains and indicators requires joint efforts by different groups.

6.1 A short illustration: The Role of Various Actors in Increasing the HIP Index

In considering insufficiency across various indicators in the domain of Governance, it was found that only 56.9% of Penangites achieved sufficiency in governance. Among the not-yet-happy people, 78.6% of this group was found to lack sufficiency. As such, the government is undeniably the most important actor when it comes to improving governance. They have to ensure the government at all levels remains clean and free of corruption, and strive to improve public service delivery and increase competency. All actions undertaken by the government, as well as the corresponding processes, have to be accountable and transparent, and this has to be clearly shown to the people of Penang via public audits where possible.

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14 Refer to Figure 5.3, Chapter 5.
15 Refer to Figure 5.4, Chapter 5.
At the same time, the community is also responsible for holding the government accountable. It is up to the community and civil society to scrutinise the actions and decisions of the government. They have the right to demand explanations and accountability from the government, if they viewed certain actions as untenable. Conversely, they can voice out satisfaction and approval for the desirable actions of the government. This can help the government to pinpoint the acceptance of these measures, and continue moving in that positive direction for the benefit of the people. The act of checks and balances between the government, the opposition and the community is one of the ways that sufficiency in governance can be increased.

For the domain of Economic Well-being, financial security is the indicator where the least people had achieved satisfaction, only 61.1%. Conversely, when looking at the insufficiency of not-yet-happy people for the same indicator, it was observed that 61.9% were considered deprived. One may argue that the state government has a limited role to play, as the encouragement of savings usually incorporates favourable interest rates from banks, where the central role is assumed by Bank Negara Malaysia and the federal government.

However, if the state government has recognised financial security to be an area of insufficiency, it can act, formulate and implement programmes to illustrate the importance of savings as well as ways to save. These programmes and the information can then be disseminated to the community, specifically low-income communities, who struggle most with financial security and the accumulation of savings.

Simultaneously, the community and its leaders can increase engagement with the implemented programmes by raising awareness and circulating information to educate their communities on the tools and knowledge that they can use to ensure better financial stability. In addition to that, households and individuals themselves hold personal responsibility for ensuring the viability of their finances. At its core, the decision to spend or save lies within their own hands.

Within the domain of Environmental Sustainability, environmental issues and awareness saw the lowest achievement in sufficiency, and this extends across all the other indicators in the other three domains. Only 41.5% of the respondents professed that they attained sufficiency in the aforementioned indicator. When it comes to the not-yet-happy people, 80% of them professed to lack sufficiency.

Clearly, there are various environmental issues that are matters of great concern to Penangites. The government plays the main role in crafting sustainable policies in protecting the environment. While the HIP survey shows that Penangites are generally happy with the available policies, their persisting concerns illustrate that there is still a lot to be done in ensuring the protection of the environment’s vitality and sustainability.

The community, of course, is also a key actor when it comes to raising awareness on environmental issues and alleviating the said issues. Activism in the community can be fostered and directed at efforts to protect the environment and ensure that it is clean and free of pollution. In fact, individuals are responsible for making sure that they do not contribute to pollution and playing their part in safeguarding the sustainability of the environment. Environmental concerns

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16 Refer to Figure 5.3, Chapter 5.
17 Refer to Figure 5.4, Chapter 5.
18 Refer to Figure 5.3, Chapter 5.
19 Refer to Figure 5.4, Chapter 5.
in the community can also be reported to the government by its members to ensure that the government is aware of said issues and take action.

Urban connectivity was identified as the indicator that most lacked sufficiency in the domain of Liveability and Social Well-being, where only 61.6% of the people were able to reach sufficiency.\textsuperscript{20} In comparison, 80.7% of the not-yet-happy people indicated that they lacked sufficiency when it comes to urban connectivity.\textsuperscript{21} Clearly, satisfaction is seen to be lacking across the indicators of public transportation and road connectivity.

Though public transportation may be under the jurisdiction of the federal government, the state government can work together with the federal government to increase its efficiency and accessibility. As a way forward, both the government and the community leaders can garner feedback from the community on the necessity of public transportation within their respective areas and push for the increase of services as well as better service delivery.

The increased efficiency and accessibility of public transportation also has the potential to decrease road and traffic congestion and increase satisfaction among road users. Road conditions and traffic jams were deemed as the two issues where respondents held the highest dissatisfaction. The government holds the responsibility for ensuring effective and sustainable urban planning, and in making sure that the roads are well-maintained and safe for all road users. The community and the individual can also play their respective parts by reporting unsafe road conditions, carpooling or avoiding congested roads to ensure traffic is well spread out.

In conclusion, the responsibility for improving happiness across the four domains and their indicators lie with the government, community, as well as households and individuals. Even so, there will be overlaps within areas of action, and it is imperative that there is cohesive cooperation and partnership between all actors to ensure the effectiveness of policies and actions in raising the HIP Index. The areas where sufficiency is the lowest should be given priority.

At the same time, the indicators which enjoyed high sufficiency should be maintained and improved upon. The HIP Index can be elevated with sustainable government policies, as well as collective and meaningful actions within the community. Households and individuals can become happier by fostering resilient and close familial relationships and adopting values that are sustainable and wholesome.

\textsuperscript{20} Refer to Figure 5.3, Chapter 5.
\textsuperscript{21} Refer to Figure 5.4, Chapter 5.
References


Appendices

Appendix 1

Figure 1: Perceptions towards the federal government’s performance by district (N = 3,011)

<table>
<thead>
<tr>
<th>District</th>
<th>Fighting Corruption</th>
<th>Enhancing Public Delivery</th>
<th>Competency</th>
<th>Accountability</th>
<th>Transparency</th>
<th>Management of Pandemic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Timur Laut</td>
<td>30.9%</td>
<td>19.0%</td>
<td>32.3%</td>
<td>13.9%</td>
<td>3.8%</td>
<td>Very poor</td>
</tr>
<tr>
<td>Barat Daya</td>
<td>26.3%</td>
<td>17.7%</td>
<td>39.5%</td>
<td>12.2%</td>
<td>4.3%</td>
<td>Poor</td>
</tr>
<tr>
<td>Seberang Perai Utara</td>
<td>17.9%</td>
<td>15.0%</td>
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<td>21.6%</td>
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</tr>
<tr>
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<td>35.2%</td>
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<tr>
<td>Seberang Perai Selatan</td>
<td>10.2%</td>
<td>22.3%</td>
<td>40.1%</td>
<td>22.8%</td>
<td>4.6%</td>
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</tr>
<tr>
<td>Timur Laut</td>
<td>15.9%</td>
<td>19.4%</td>
<td>43.2%</td>
<td>16.4%</td>
<td>5.1%</td>
<td>Very poor</td>
</tr>
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<td>Barat Daya</td>
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<td>48.1%</td>
<td>17.1%</td>
<td>5.1%</td>
<td>Poor</td>
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<td>46.7%</td>
<td>23.6%</td>
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</tr>
<tr>
<td>Seberang Perai Selatan</td>
<td>9.8%</td>
<td>24.1%</td>
<td>32.5%</td>
<td>25.1%</td>
<td>4.6%</td>
<td>Very good</td>
</tr>
<tr>
<td>Timur Laut</td>
<td>20.8%</td>
<td>20.2%</td>
<td>40.7%</td>
<td>13.3%</td>
<td>4.9%</td>
<td>Very poor</td>
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<td>Barat Daya</td>
<td>18.3%</td>
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<td>47.3%</td>
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<td>47.5%</td>
<td>23.0%</td>
<td>4.1%</td>
<td>Average</td>
</tr>
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<td>14.6%</td>
<td>47.6%</td>
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<td>3.2%</td>
<td>Good</td>
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<td>19.7%</td>
<td>42.5%</td>
<td>22.3%</td>
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<td>37.9%</td>
<td>13.3%</td>
<td>5.1%</td>
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<td>14.7%</td>
<td>46.3%</td>
<td>23.1%</td>
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<td>Average</td>
</tr>
<tr>
<td>Seberang Perai Tengah</td>
<td>16.3%</td>
<td>13.7%</td>
<td>44.2%</td>
<td>22.2%</td>
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<td>Seberang Perai Selatan</td>
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<td>18.9%</td>
<td>43.8%</td>
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<td>21.1%</td>
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<td>13.5%</td>
<td>4.9%</td>
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</tr>
<tr>
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<td>42.2%</td>
<td>12.4%</td>
<td>4.1%</td>
<td>Poor</td>
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<tr>
<td>Seberang Perai Utara</td>
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<td>Average</td>
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<tr>
<td>Seberang Perai Tengah</td>
<td>17.2%</td>
<td>16.5%</td>
<td>41.9%</td>
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<td>Seberang Perai Selatan</td>
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<td>22.8%</td>
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<td>24.1%</td>
<td>6.3%</td>
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</tr>
</tbody>
</table>

Legend: [Very poor] [Poor] [Average] [Good] [Very good]
Figure 2: Satisfaction levels towards the state government’s performance since the 14th general election (N = 3,011)

- Very dissatisfied
- Dissatisfied
- Neutral
- Satisfied
- Very satisfied

Figure 3: Perceptions towards the state government’s performance by district (N = 3,011)
Figure 4: Effects of the Covid-19 pandemic/MCO on employment (N=3,011)

- 1. Very affected (lost job/business)
- 2. Affected (forced/unpaid leave, reduced hours/pay and/or profits)
- 3. Unchanged/not affected
- 4. Positively affected (increased business/sales/profits)

Figure 5: Satisfaction levels towards spending on living expenses by gender
Figure 6: Perception of comfort towards levels of debt by gender and age

Figure 7: Current housing status by gender, age and income level
Figure 8: Satisfaction levels towards current level of employment

Note: “Not applicable” responses are taken out and not calculated in the percentages presented.

Figure 9: Satisfaction levels towards forest and hill conservation
Figure 10: Positive attitudes towards eco-friendly actions by gender, age, education level and income group (N = 3,011)

Note: Only “always” and “most of the time” responses are included.
Figure 11: Satisfaction levels towards housing conditions by district
(N = 3,011)

Note: Dissatisfied = Combination of dissatisfied/very dissatisfied, satisfied = Combination of satisfied/very satisfied

Figure 12: Levels of importance towards the celebration of traditional and cultural festivals
(N = 3,011)
Figure 13: Levels of concern towards crime and social problems within the community (N= 3,011)

- Very concerned: 19.76%
- Concerned: 12.12%
- Somewhat concerned: 29.69%
- Unconcerned: 36.63%
- Very unconcerned: 1.79%

Figure 14: Satisfaction levels towards cleanliness by district (N = 3,011)

Note: Dissatisfied = Combination of dissatisfied/very dissatisfied, Satisfied = Combination of satisfied/very satisfied
Figure 15: Satisfaction levels towards public transportation by district (N = 3,011)

Note: Dissatisfied = Combination of dissatisfied/very dissatisfied, Satisfied = Combination of satisfied/very satisfied

Figure 16: Satisfaction levels towards urban connectivity by district (N = 3,011)

Note: Dissatisfied = Combination of dissatisfied/very dissatisfied, Satisfied = Combination of satisfied/very satisfied
Figure 17: Satisfaction levels towards digital connectivity by district  
(N = 3,011)

![Graph showing satisfaction levels towards digital connectivity by district]

Note: Dissatisfied = Combination of dissatisfied/very dissatisfied, Satisfied = Combination of satisfied/very satisfied

Table 1: Respondents’ ratings of happiness corresponding to present quality of life  
(N = 3,011)

<table>
<thead>
<tr>
<th>Happiness scale rating</th>
<th>Present quality of life</th>
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<td>10</td>
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</table>

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## Appendix 2

### Table 1: Percentage contribution of insufficiency by each domain/indicator to deprivations

<table>
<thead>
<tr>
<th></th>
<th>Liveability and Social Well-being</th>
<th>Economic Well-being</th>
<th>Freedom and Governance</th>
<th>Environmental Sustainability</th>
</tr>
</thead>
<tbody>
<tr>
<td>District</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Figure 1: Percentage contribution of insufficiency by each domain to deprivations of the not-yet-happy people by district

- **Freedom and Governance**
  - Timur Laut: 26.1%
  - Barat Daya: 26.0%
  - Seberang Perai Utara: 23.2%
  - Seberang Perai Tengah: 26.0%
  - Seberang Perai Selatan: 32.5%

- **Economic Well-being**
  - Timur Laut: 22.7%
  - Barat Daya: 24.4%
  - Seberang Perai Utara: 27.7%
  - Seberang Perai Tengah: 24.9%
  - Seberang Perai Selatan: 19.5%

- **Environmental Sustainability**
  - Timur Laut: 24.8%
  - Barat Daya: 23.7%
  - Seberang Perai Utara: 22.7%
  - Seberang Perai Tengah: 22.8%
  - Seberang Perai Selatan: 24.0%

- **Liveability and Social Well-being**
  - Timur Laut: 26.4%
  - Barat Daya: 25.9%
  - Seberang Perai Utara: 26.5%
  - Seberang Perai Tengah: 26.2%
  - Seberang Perai Selatan: 24.1%

Figure 2: Percentage contribution of insufficiency by each domain to deprivations of the not-yet-happy people by gender

- **Freedom and Governance**
  - Male: 28.0%
  - Female: 27.2%

- **Economic Well-being**
  - Male: 22.5%
  - Female: 23.0%

- **Environmental Sustainability**
  - Male: 24.2%
  - Female: 23.8%

- **Liveability and Social Well-being**
  - Male: 25.3%
  - Female: 26.0%
Figure 3: Percentage contribution of insufficiency by each domain to deprivations of the Not-yet-happy people by age group

Figure 4: Percentage contribution of insufficiency by each domain to deprivations of the Not-yet-happy people by education level
Figure 5: Percentage contribution of insufficiency in each domain to deprivations of the Not-yet-happy people by employment status

Note:  
a) Self-employed and homemakers are included in employed category.  
b) Students and retirees are included in not employed and not looking for employment category.