Reshaping Living Space in Malaysia from the Evolving Work Pattern

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Abstract
The shift in work patterns in Malaysia, accelerated by technological advancements and the COVID-19 pandemic, necessitates a reevaluation of living environments. Traditional office-based work is giving way to remote and hybrid models, requiring homes to become multifunctional spaces. However, existing housing designs often fail to meet the demands of remote work, leading to decreased productivity and well-being. This study addresses these challenges by employing a mixed-methods approach to examine the relationship between evolving work patterns and living environments in Malaysia. The research design includes both quantitative surveys and qualitative interviews. A structured survey will be distributed to a diverse sample of remote workers across different industries to assess their living and working conditions, productivity levels, and well-being. Qualitative interviews will be conducted with selected participants to gain deeper insights into their experiences and challenges in adapting their living spaces for remote work. Data analysis will involve statistical methods to identify correlations and themes from qualitative data will be coded and analyzed using thematic analysis. The expected results include improved living conditions, enhanced job satisfaction, and greater productivity, contributing to sustainable urban development and better work-life balance.
Keywords: Remote Work Productivity, Work-Life Balance, Living Space Design, Work Environment Integration, Architectural Innovations

Introduction
The work pattern in Malaysia has been undergoing a transformative shift, driven by technological advancements, changing work preferences, and the global COVID-19 pandemic. This evolution has led to the emergence of diverse work patterns, including traditional office-based work, remote work, hybrid work patterns, and the concept of working from alternative locations such as cafes or mobile offices (Ibrahim et al., 2023). These changes have significant

implications for the design and functionality of living environments in Malaysia. Traditionally, Malaysia has followed a conventional office-based work pattern, with employees commuting to a centralized workplace for fixed hours. However, in recent years, there has been a notable shift towards more flexible work arrangements, this includes remote work where employees can work from home or other locations outside the office, as well as hybrid work models that combine remote work with office-based work (Ferrara et al., 2022; Shaari & Amirul, 2023). Additionally, some individuals opt for remote work at cafes or mobile offices, leveraging Malaysia's growing digital infrastructure (Hermann & Paris, 2020; Toh et al., 2022).

Understanding Malaysia's evolving work patterns is crucial for several reasons. Firstly, it allows policymakers, urban planners, and architects to anticipate and plan for future changes in living environments(Subramaniam et al., 2018). Secondly, it helps organizations adapt their policies and practices to better support remote and flexible work arrangements. Finally, it enables individuals to make informed decisions about their work-life balance and living arrangements (Ferrara et al., 2022). The shift towards remote and flexible work has reshaped the way Malaysians view and use their living environments. Homes are no longer just places to live but have become multifunctional spaces that serve as offices, schools, and recreational areas (Kholid et al., 2021; Runze et al., 2023). This has led to a growing demand for living spaces that are adaptable and conducive to both work and leisure activities.

The need to reshape living environments in Malaysia was identified as a response to the changing work patterns and the challenges posed by traditional housing solutions. The significance of this need lies in its potential to improve the quality of life for remote workers, enhance productivity, and contribute to a more sustainable and inclusive urban environment (SDG7). By creating living spaces that are well-suited for remote work, Malaysia can attract and retain talent, boost economic growth, and enhance overall well-being (Abdul Aziz et al., 2023; Subramaniam et al., 2020).

The proposed research project will benefit a wide range of stakeholders, including policymakers, urban planners, architects, employers, employees, and the broader community. Policymakers and urban planners can use the research findings to inform policy decisions and urban planning strategies that support remote work (Shaari & Amirul, 2023). Architects can incorporate design principles that enhance the functionality of living spaces for remote work (Kholid et al., 2021). Employers can implement practices that support remote work, leading to increased employee satisfaction and retention (Ferrara et al., 2022). Employees can enjoy improved work-life balance and well-being, while the broader community can benefit from reduced traffic congestion and environmental impact.

Existing solutions like Small Office Home Office (SOHO) and Small Office Flexible Office (SOFO) offer alternatives to traditional office spaces, but their effectiveness in the Malaysian context requires closer examination. For instance, the Banyan Tree Residences in Kuala Lumpur have integrated flexible workspaces into their residential design, featuring dedicated home office areas that can easily adapt to changing needs. Similarly, W City in Selangor has adopted a mixed-use development model that combines residential, retail, and office spaces, allowing residents to work from home while enjoying access to amenities. These local case studies exemplify how architectural innovations can effectively support the evolving needs of remote workers in Malaysia, providing practical insights for this study's proposed design solutions.

However, these solutions face challenges, including space zoning and constraints in urban areas, requiring innovative space utilization and ergonomic design (Marzukhi et al., 2021). Infrastructure limitations, such as access to high-speed internet and technology, are also issues, especially in rural areas (Ferreira et al., 2021). Social isolation is a significant concern for remote workers, necessitating strategies to foster social connections and community (Ferreira et al., 2021). Addressing these challenges requires a holistic approach that considers physical, social, technological, and economic factors to create adaptable and sustainable living environments for remote work.

Problem Statement
Motivation Problem
The transition to remote work brings about a myriad of challenges, ranging from mental health concerns to logistical issues. Remote workers face unique hurdles that can impact their well-being and productivity, highlighting the need for tailored solutions to support them effectively. However, existing housing environments often fail to address these challenges adequately, leaving remote workers ill-equipped to thrive in their home offices (GBS Corporate, 2022). This discrepancy underscores the pressing need to reevaluate housing solutions to better accommodate the demands of remote work.

The significance of this problem is multifaceted and extends across various domains. From a mental health perspective, remote workers may experience heightened feelings of isolation and loneliness due to the absence of social interactions in traditional office settings (The Malaysian Reserve, 2024). Moreover, managing team members remotely requires specialized skills and resources to foster effective communication and collaboration(The Malaysian Reserve, 2024). Without dedicated workspace areas, remote workers may struggle to maintain boundaries between work and personal life, leading to burnout and decreased productivity (GBS Corporate, 2022). Additionally, ergonomic considerations are often overlooked in home office setups, resulting in discomfort and potential health issues for remote workers (GBS Corporate, 2022). Family interruptions and rising energy costs further compound the challenges associated with remote work, underscoring the need for comprehensive solutions to address these issues (GBS Corporate, 2022). The multifaceted challenges posed by remote work, including mental health issues, communication barriers, work-life balance, ergonomic concerns, family dynamics, and energy costs, highlight the pressing need for comprehensive solutions to support the well-being and productivity of remote workers.

Despite the increasing prevalence of remote work, there exists a notable gap in current research regarding the design and implementation of housing solutions tailored to the needs of remote workers. Existing studies primarily focus on the broader implications of remote work on mental health and productivity, overlooking the specific architectural considerations associated with home office design. This research gap presents a significant opportunity for further investigation into how architecture and urban planning can effectively support the evolving needs of remote workers. By examining the specific design elements that contribute to a productive and healthy home office environment, researchers can offer valuable insights for architects, urban planners, and policymakers. Additionally, a deeper understanding of the broader implications of remote work on urban development can inform sustainable design

strategies that promote well-being, community engagement, and environmental sustainability.

Therefore, the aim of this study is to address these gaps in current research by examining the relationship between remote work patterns and the design of living environments in Malaysia. By identifying the key challenges and opportunities associated with remote work, this study seeks to provide practical recommendations for creating more adaptable and sustainable housing solutions that cater to the evolving needs of remote workers.

Research Problem

The problem of existing housing solutions not being suitable for remote working due to distractions and other factors is a significant issue that requires further investigation. As the work pattern in Malaysia evolves towards more flexible and remote arrangements, it is becoming increasingly evident that many existing housing solutions are ill-equipped to support the needs of remote workers(Ferreira et al., 2021). This problem has significant implications for the field of architecture and urban planning, as it highlights the need for innovative design solutions that can accommodate the changing nature of work (Ferrara et al., 2022; Toh et al., 2022). This inadequacy of existing housing solutions for remote work in Malaysia underscores the urgent need for innovative design solutions in architecture and urban planning.

The implications of the problem of unsuitable housing solutions for remote working are far-reaching. Firstly, it affects the well-being and productivity of remote workers (Ibrahim et al., 2023). According to (Subramaniam et al., 2020) distractions and lack of suitable workspaces can lead to decreased productivity, increased stress, and dissatisfaction with work arrangements. Secondly, it impacts the overall quality of living environments, as homes are no longer just places to live but also serve as offices and workspaces (Au & Ahmed, 2015). This can affect the mental and physical health of residents and their ability to achieve a healthy work-life balance (Runze et al., 2023). Finally, it has economic implications, as organizations may struggle to retain and attract talent if employees are unable to work effectively from home (Ferreira et al., 2021; Toh et al., 2022).

The integration of living and workspace can lead to a decrease in work efficiency, impacting mental well-being and increasing stress levels. The blurring of boundaries between personal and professional spaces can result in difficulty in transitioning between work and leisure, leading to a constant feeling of being "on" and reducing the ability to fully relax during non-working hours (Au & Ahmed, 2015). This can result in increased levels of stress, anxiety, and burnout, as individuals may find it challenging to switch off from work-related thoughts and responsibilities (Subramaniam et al., 2020). Additionally, the lack of physical separation between work and living areas can lead to distractions and interruptions, further hindering productivity and overall work efficiency(Au & Ahmed, 2015). Therefore, understanding the psychological implications of combined living and workspace is crucial for designing environments that promote both productivity and mental well-being.

In the field of architecture, this problem underscores the need for innovative design solutions that can adapt to the changing needs of remote workers. Traditional housing designs may not adequately support remote work, leading to a mismatch between the needs of residents and

the available housing options(Kholid et al., 2021). The fundamental layout principles of Malaysian terraced houses have remained largely unchanged, indicating the potential for adapting spatial behavior to accommodate remote work norm (Kholid et al., 2021). This highlights the importance of considering workspaces as integral components of living environments and designing homes that are conducive to both living and working.

Further investigation into the problem of unsuitable housing solutions for remote working is necessary for several reasons. Firstly, there is a lack of research focused specifically on designing living environments that support remote work in Malaysia (Marzukhi et al., 2021). While existing concepts such as Small Office Home Office (SOHO) and Small Office Flexible Office (SOFO) are available, their suitability and effectiveness in the Malaysian context have not been extensively studied (Marzukhi et al., 2021). Secondly, there is a need for more research on the long-term implications of remote work on living environments and urban development in Malaysia (Toh et al., 2022). As remote work becomes increasingly common, it is essential to understand how this trend will impact housing demand, urban sprawl, and infrastructure development.

However, there are gaps in current architectural practice when it comes to designing living environments for remote work. Many architects and urban planners still prioritize traditional housing designs that may not meet the needs of remote workers. There is a need for new design approaches that consider the unique requirements of remote work, such as the need for quiet, dedicated workspaces, reliable internet connectivity, and access to amenities. By addressing these gaps in research and practice, architects can help create living environments that support the evolving work patterns of the modern workforce.

In conclusion, the problem of existing housing solutions not being suitable for remote working due to distractions and other factors is a significant issue that requires further investigation. It has implications for the well-being, productivity, and overall quality of life of remote workers, as well as economic implications for organizations and urban development. By conducting further research and developing innovative design solutions, architects can help reshape living environments in Malaysia to better accommodate the evolving work patterns of the modern workforce.

This research seeks to investigate the specific trends influencing work patterns in Malaysia, considering variations across different industries and demographics. The aim is to understand how these evolving work patterns are impacting the design and functionality of living environments, particularly in terms of the emerging needs and preferences of remote workers. By examining these trends, the study will provide insights into the broader implications for well-being, productivity, and overall quality of life for individuals working remotely.

In addition to exploring the trends and their effects, the research will analyze the challenges and opportunities in reshaping living environments to better accommodate the modern workforce. This will involve evaluating how remote work is influencing living spaces and proposing actionable recommendations for policymakers, urban planners, architects, and employers. These recommendations will aim to enhance the adaptability and sustainability of living environments to support the changing nature of work in Malaysia.

Through a detailed analysis of the impact of these work patterns on urban planning, architecture, and housing policy, the study aims to inform policymakers, urban planners, architects, and employers about the importance of creating adaptable and sustainable living environments. By identifying current challenges and opportunities, the study seeks to offer practical recommendations for enhancing living environments to support the evolving work patterns in Malaysia. Ultimately, the study aims to contribute to the development of more inclusive, resilient, and livable cities that meet the needs of a changing workforce and promote overall well-being and productivity.

Literature Review

The literature examined in this review, as detailed in the table, underscores the importance of structured workplace support, flexible working arrangements, and the evolving dynamics of remote work in Malaysia. Au (2015) highlights the need for better mechanisms to help employees manage the work-life balance, while Shaari (2023) advocates for the implementation of "Right to Disconnect" policies. Ferreira (2021) and Ferrara (2022) provide insights into the decision factors and well-being challenges associated with remote work, emphasizing the importance of addressing communication breakdowns and social isolation. In the healthcare and academic sectors, Runze (2023) and Subramaniam (2020) reveal the benefits of flexible work policies, while acknowledging the potential downsides of blurred boundaries between work and personal life.

Further, Ibrahim (2023) discusses the significance of trust-based relationships during work-from-home arrangements, and Kholid (2021) explores the spatial implications of remote work on suburban housing designs. Hasan (2022), Toh (2022), and Abdul Aziz (2023) address productivity, work-life balance, and job satisfaction in the context of remote work, identifying key areas for organizational improvement. Collectively, these studies call for strategic interventions to address the challenges posed by modern work environments and propose actionable solutions for enhancing employee well-being and job satisfaction in Malaysia.

Document	Problem Statement	GAP	P.O.D	Conclusion	Remarks
Au (2015) - Exploring the effects of workplace support on work-life experience: A study of Malaysia	Malaysian employees lack significant structured support at the national level regarding policies and legislation that promote work-life balance.	Over time, there has been a changing composition and expectations among the workforces. As education levels have increased, expectations and lifestyles have also evolved.	This paper aimed to enhance comprehension of the impact of workplace support on work-life experience in Malaysia, particularly within a context where national support is minimal.	These results underscore the necessity of investigating alternative mechanisms that could aid employees in minimizing interference between their work and nonwork domains.	The analysis lacks depth in policy implementation, neglects cultural and technological impacts, and lacks diverse workforce considerations, hindering actionable recommendations for work-life balance improvement in Malaysia.

Shaari (2023) - Flexible Working Arrangements (FWAs) in Malaysia: The Missing Component of the Right to Disconnect	Extended office hours or work beyond regular hours can lead to various issues including stress, depression, anxiety, high turnover rates, burnout, absenteeism, and presenteeism.	The traditional notion of a 9-to-5 workday is no longer upheld, with "Digitally yours, 24/7/365" labor becoming widespread in numerous countries.	This article aims to examine the adoption of Right to Disconnect (RTD) laws in France and select European Union (EU) nations, as well as the potential for implementing RTD legislation in Malaysia.	Workers need safeguarding from the potential adverse effects of overusing modern communication tools. The introduction of the "Right to Disconnect" addresses emerging workplace dynamics.	The passage requires a concise conclusion stressing the necessity of introducing the "Right to Disconnect" in Malaysia to tackle workplace issues and ensure employee welfare.
Ferreira (2021) - Decision factors for remote work adoption: Advantages, disadvantages, driving forces and challenges	Professionals express primary concerns about communication and technical issues, alongside management challenges.	Recent studies highlight remote work (RW) as a rapidly evolving and complex domain, stressing the importance of synthesizing decision factors to aid decision-makers before adopting RW.	This research aims to provide decision-makers with insights into the advantages, disadvantages, driving forces, and challenges of remote work for informed decision-making.	Remote work is also viewed as a beneficial method for workers to efficiently manage their day, balancing work, and personal matters, potentially enhancing worker motivation and productivity.	The article lacking a deeper exploration of specific strategies and best practices for addressing the communication and technical challenges inherent in remote work adoption.
Ferrara (2022) - Investigating the Role of Remote Working on Employees' Performance and Well-Being: An Evidence-Based Systematic Review	Work isolation can threaten employees' sense of belonging within their organization, potentially hindering access to social support from colleagues, thereby increasing the risk of stress and anxiety.	These factors encompass the technological readiness of organizations, the quality of services and technological tools available to employees, employees' skills, and competencies in adapting to new work methods, and the feasibility of relocating tasks and responsibilitie	This paper aims to conduct a systematic literature review on the risks and opportunities for employee stress and well-being associated with teleworking, focusing on papers published from 2010 to 2021.	Even prior to the pandemic, remote working influenced employees' perceptions of themselves, the workplace, their health, and their work-life balance.	The article lacks a thorough analysis of specific strategies for mitigating the negative impacts of work isolation and maintaining employee well-being in remote work settings.

		s outside the office.			
Runze (2023) - The Impact of Work-Life Balance on Job Performance and Job Satisfaction among Healthcare Professionals in Malaysia	Healthcare workers, known for their dedication, often face long hours, stress, and limited flexibility, impacting their work-life balance, job performance, and well-being.	Currently, there is a scarcity of studies focusing on the healthcare sector in East Malaysia	The main objective of the study is to provide insights to enhance Malaysia's healthcare industry in recruiting, retaining, and motivating its medical professionals.	Implementing a flexible work-life balance (WLB) policy tailored to accommodate diverse worker needs and job roles is an effective approach to mitigating work-life and family conflicts.	The article lacks specific recommendations or actionable strategies for healthcare organizations in East Malaysia to effectively implement and sustain work-life balance policies.
Subramaniam (2020) - Exploring Academics' Work-Life Balance and Stress Levels Using Flexible Working Arrangements	However, in developing countries, many organizations still adhere to traditional working practices, requiring employees to work specific hours and clock in and out at designated times.	However, in Malaysia, it's perceived that flexible working arrangements (FWAs) are unevenly distributed among various types of universities.	The primary aim of this study is to explore academics' perspectives on flexible working arrangements (FWAs) and their influence on work-life balance (WLB) and stress levels.	In assessing the cost-benefit of flexible working arrangements (FWAs), participants unanimously agreed that the benefits outweighed the costs, leading to increased well-being.	This article lacks a detailed analysis of how to effectively address and manage the potential drawbacks of Flexible Working Arrangements (FWAs), such as the blurred boundaries between work and leisure time.
Ibrahim (2023) - Work from home practices and employment relations during COVID-19 movement control order in Malaysia	The absence of in-person interactions can lead to segregation and reduced sense of belonging, responsibility, and organization. It may also result in non-standard working patterns and weaker work ethics due to inadequate conditions.	This exploratory study is a subset of a larger research project, with this paper specifically discussing work-from-home (WFH) practices and their impact on employment relationships.	This paper aims to investigate the impact of working from home (WFH) during the movement control order (MCO) on employment relations in Malaysia.	The study reveals that the success of WFH during the MCO on employment relations hinges on trust-based relationships, demonstrated through cooperative efforts among all parties committed to their work responsibilities.	The article lacks specific recommendations or strategies for employers to effectively maintain and enhance employment relationships and employee engagement in a remote work environment during and after the COVID-19 movement control order.

Kholid (2021) - 'Working from Home' – Recent development trends in terraced housing design in a new suburban township in Malaysia	The developers' spatial strategies seamlessly integrate living spaces, reserving work areas solely for children doing homework in their bedrooms. Despite this, the fundamental principles of Malaysian terraced house layout have remained unchanged for decades.	Currently, the proximity to the workplace is not a major concern as most work or business activities are conducted online.	This research aims to explore the culture of working from home and its impact on the spatial design of developer-designed terraced housing schemes in a new suburban township in Malaysia.	While there has been a gradual shift towards exploring the possibilities of working from home, the overarching concept still lacks clarity. Trends in living and working have now transitioned from residing near the workplace to working in the comfort of our homes.	The article lacks detailed recommendations for developers on how to specifically incorporate the evolving needs of remote work into the design of terraced houses, ensuring these designs meet the practical requirements of a work-from-home lifestyle.
Hasan (2022) - Perceived Outcome of Working from Home among Malaysian Employees: A preliminary quantitative study	When colleagues and superiors offer no support, and an employee lacks opportunities for social and emotional interaction with team members, it can lead to perceived isolation or what is commonly known as perceived separation.	However, the findings of this study contrast with another study, which found that when respondents worked from home, their roles did not significantly impact their performance. Additionally, the experience of isolation resulted in fewer distractions and increased focus on tasks at hand.	This study aims to explore factors influencing work focus and perceived separation in relation to working from home (WFH), as well as employees' perceptions of WFH as a new norm.	This study suggests that employers should maintain communication and supervision for employees working from home. Furthermore, employees should receive training in effective management and independent work skills to improve work focus and productivity.	The article lacks specific actionable recommendations for employers on how to mitigate the effects of perceived isolation and enhance communication and supervision for employees working from home.

Toh (2022) - Factors affecting remote working productivity: A study at Higher Education Institution in Sibu, Sarawak	Continuing to work with the same output or efficiency as during the pandemic may lead to a reduction in productivity, posing a long-term threat to economic growth.	However, the primary concern for most corporate companies regarding long-term working from home is a decrease in productivity.	The study examines the direct impact of the homework environment, peer support, work satisfaction, and organizational support on remote working productivity.	Remote working must be managed carefully to ensure it enhances rather than diminishes the quality of work or employee productivity. It has been proven that the home working environment plays a crucial role in maintaining productivity when employees work from home.	The article lacks specific recommendations or guidelines for creating an optimal homework environment and organizational strategies to support long-term productivity in remote working arrangements.
Abdul Aziz (2023) - a Case Study of a Service Organisation in Malaysia: Employees' Work-Life Balance, Work Commitment & Leadership Style on Job Satisfaction During Remote Working	One major challenge faced when an organization transitions from office to remote working is job dissatisfaction stemming from blurred work-life boundaries, heightened work commitments, and changes in leadership style during remote work.	In Malaysia, there are few studies that have specifically investigated employees' work-life balance, work commitment, and leadership style during remote working.	The objective of this study was to examine the relationship between work-life balance, work commitment, leadership style, and job satisfaction among non-managerial workers during remote working in a service organization in Malaysia.	Employees who struggle to achieve a healthy work-life balance between their professional and personal lives often report lower levels of work-life balance and job satisfaction.	The excerpt lacks specific recommendations or actionable strategies for organizations to address the challenges of maintaining work-life balance, work commitment, and leadership effectiveness during remote working in the context of a service organization in Malaysia.

Designing Living Spaces for Remote Work: Key Considerations and Insights

The evolving work patterns brought about by remote work, particularly in the wake of the COVID-19 pandemic, have profound implications for living spaces and employee productivity. Figure 1 illustrates a theoretical framework on living spaces in relation to these evolving work patterns, drawing from several key studies. Runze et al. (2023) explore remote working productivity among employees in higher education institutions, revealing that the home environment is a critical factor influencing productivity. However, other elements such as peer support, work satisfaction, and organizational backing were found to have minimal direct impact. The study emphasizes the importance of optimizing home workstations and

physical workspaces to enhance productivity in remote settings. This suggests that living spaces designed with proper work environments, conducive to focused tasks, play a significant role in boosting productivity for remote workers.

Toh et al. (2022) further reinforces this by examining how the pandemic accelerated remote working across various sectors, including higher education. The study highlights the crucial role of the home environment in maintaining productivity, echoing findings from Runze et al. (2023). Toh also identifies peer support, work satisfaction, and organizational backing as secondary factors, indicating that the immediate physical workspace plays a far greater role in ensuring remote work success.

Ibrahim et al. (2023) delve into the broader societal impacts of working from home (WFH) in Malaysia, identifying four key factors that shape WFH effectiveness: digital transformation, digital communication, organizational support, and new working styles. Trust, collaboration, and mutual commitment among employees, employers, and government entities emerge as critical elements for fostering successful remote working environments. Ibrahim's study suggests that the seamless integration of technology within home-based workspaces is pivotal to ensuring productive and harmonious employment relations under WFH conditions.

Lastly, Kholid et al. (2021) focus on the spatial design implications of the WFH culture, particularly in suburban housing developments. Through observational analysis, the study advocates for the adoption of flexible, open-plan layouts that integrate living and working areas. The findings highlight the growing trend of designing terraced housing schemes that support remote work, with features such as double-frontage layouts and nooks designed to enhance work-life balance within the home. This aligns with the increasing shift toward flexible workspaces within residential environments, emphasizing the need for adaptable housing designs that cater to modern work practices.

Collectively, these studies illustrate the interdependence between living space design and evolving work patterns, underscoring the importance of optimizing home environments to support productivity, well-being, and flexibility in the context of remote work.
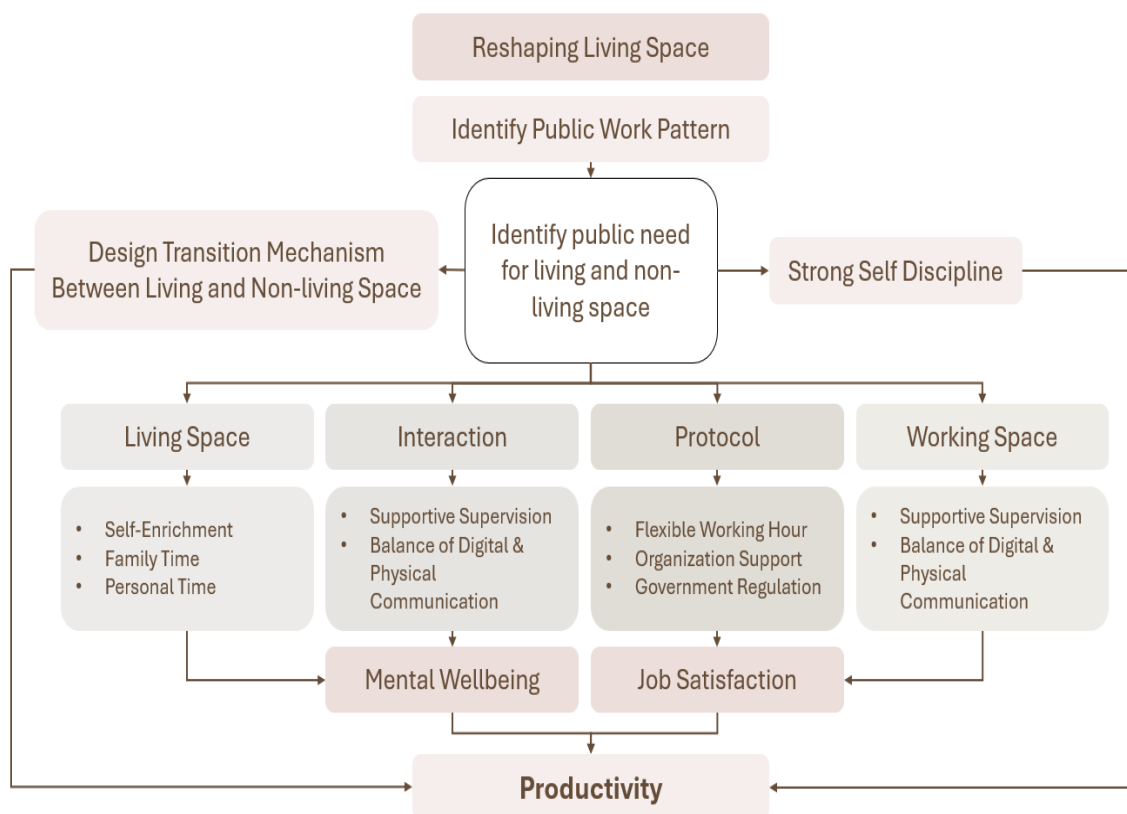
Conceptual Framework

Figure 1: Conceptual framework on Productivity in Work-from-Home Arrangements.

The framework starts by identifying the prevalent work patterns among the public and evaluating their specific requirements for living and working environments. This understanding is essential for creating spaces that align with the evolving demands of remote work, ensuring both living and working conditions foster productivity and well-being.

A crucial design focus is the seamless transition between living and working spaces. This integration minimizes disruptions and enhances efficiency, allowing individuals to switch smoothly between work and relaxation while maintaining a clear distinction between professional and personal time. This balance is vital for sustaining productivity and overall well-being.

Self-discipline emerges as a key factor in managing remote work effectively. It helps individuals set boundaries, remain focused, and balance work and personal life. The framework highlights how well-designed living spaces can foster personal enrichment, family interaction, and relaxation, while working environments should be optimized for productivity, with ergonomic features and advanced technological tools.

Interaction is supported by effective supervision and a blend of digital and physical communication. Managerial support helps remote workers feel connected and guided, while balanced communication reduces isolation and fosters teamwork. Flexible working hours, organizational support, and government regulations form the foundation of a supportive

work environment. These protocols ensure that remote work adapts to diverse employee needs, provides necessary resources, and is backed by stable policies that facilitate remote working conditions. The ultimate goal of the framework is to enhance mental health and job satisfaction, as better-designed environments and supportive protocols directly address the psychological and social needs of remote workers. This, in turn, leads to a more motivated and productive workforce.

By integrating thoughtful living and working environments, effective communication, and self-discipline, the framework promotes increased productivity. It emphasizes understanding work patterns, creating seamless transitions between work and personal spaces, and establishing robust support systems. This holistic approach ensures that remote workers can thrive, balancing both productivity and well-being in a well-designed environment.

Conclusion

This research highlights the urgent need for innovative housing designs in Malaysia to support the evolving work patterns driven by technological advancements and the post pandemic. By addressing the gaps in current housing solutions, particularly the inadequacy of home offices, and providing actionable recommendations for policymakers, urban planners, architects, and employers, the study aims to enhance the well-being and productivity of remote workers. The findings emphasize the importance of designing adaptable and multifunctional living environments that integrate workspaces effectively, thereby contributing to sustainable urban development and improved quality of life.

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