**Research Methods And Professional Practices (RMPP\_PCOM7E)**

**Literature Review Resubmission**

**Done By: Lakshmi Narayana Bharadwaj Ganapavarapu**

**Student ID: 12690000**

Word Count: 2356.

**Leveraging Technology in Enhancing Real Estate Awareness in Rural and Semi-Urban Areas: A Literature Review**

**Introduction**

Real estate development in rural, semi-rural, and semi-urban areas plays a crucial role in the socio-economic growth of the said regions. However, the awareness and investment in real estate in these areas often lag behind their urban counterparts. Technology can bridge this gap by enhancing the visibility and attractiveness of real estate investments in less developed areas. The expansion of the real estate sector into rural, semi-rural, and semi-urban areas presents significant opportunities and challenges. Additionally, it assesses the necessity of such technologies and their potential to transform the real estate sector in underexplored regions.

**Technologies in Focus**

1**. Geographic Information Systems (GIS):** GIS technology provides spatial data that are critical in real estate for site selection, market analysis, and investment feasibility studies. GIS helps in mapping and analyzing geographical data, which is crucial for real estate development in less urbanized areas.

2. **Virtual Reality (VR) and Augmented Reality (AR):** These technologies offer immersive experiences, allowing potential investors to visualize properties remotely, which is particularly useful for attracting distant investors.

3. **Big Data and Analytics:** Leveraging data analytics can help identify trends, investment opportunities, and customer preferences in rural and semi-urban real estate markets.

4. **Blockchain:** This technology can ensure transparency and security in real estate transactions, which are pivotal in regions with less regulatory oversight.

**Focus, Aim, and Audience**

The review focuses on the deployment of these technologies to enhance market penetration, investment, and development in the real estate sectors of rural, semi-rural, and semi-urban areas. The audience for this review includes real estate developers, investors, policymakers, and technology providers who are engaged in or are considering entering these emerging markets.

**Significance of the Review**

This review is crucial as it sheds light on innovative technological solutions that can facilitate the growth of real estate markets in less developed areas, which are often overlooked.. This review has transformative potential of technology in leveling the playing field for real estate development across various geographies. The review can also help stakeholders understand how to effectively leverage technology to overcome barriers such as lack of awareness, inadequate infrastructure, and limited access to financial services.

**Ongoing Research and Key Findings**

Recent studies have shown that technology adoption in rural real estate markets is still in its nascent stages but has significant potential. An article from the Times of India (2024) discusses the dynamic growth and transformation of the Indian real estate sector, focusing particularly on the residential market due to the expansion of the middle class and overall economic development. Here are the main points highlighted:

1. **Low-Density Housing Surge:** There's an increasing demand for low-density residential options like villas and townhouses, driven by a desire for more space and a connection to nature. This trend reflects a shift towards sustainable living and prioritizes privacy and exclusivity.

2. **Technological Integration:** The real estate market is increasingly incorporating technology, with smart homes and AI-enhanced living becoming standard. This shift aims to provide convenience, security, and a futuristic living experience.

3. **Preference for Homeownership:** The Covid-19 pandemic has heightened the value placed on homeownership, with more people seeing the benefit of owning over renting. This is evident from the steady demand for housing loans, which align with pre-pandemic levels.

4. **Luxury Housing Demand**: There's a significant rise in the luxury housing segment, driven by affluent buyers seeking high-quality amenities and a superior living experience. The market for luxury homes is growing, supported by the changing lifestyles and increased income of younger demographics.

5. **Growth in Tier 2 Cities**: Post-pandemic, there's been a noticeable interest in Tier 2 cities as desirable real estate locations, supported by infrastructure developments and governmental initiatives like the smart cities project. These cities are becoming significant players in the real estate market, with rising investment activities.

6. **Government Initiatives and Affordable Housing**: The government is actively promoting affordable housing to address the needs of low to middle-income households through schemes like Pradhan Mantri Awas Yojana. This includes significant budget allocations to support these initiatives.

Overall, the article paints a picture of a robust and evolving residential real estate market in India, characterized by technological advancements, a shift towards luxury and low-density housing, and significant growth in emerging cities, all supported by government initiatives aimed at increasing homeownership and housing affordability.

Another comprehensive study focuses on the impact of investor awareness on the performance of Real Estate Investment Trusts (REITs) in Kenya (2022). Here's a summary of the key points:

1. **Introduction and Background**: The article begins by outlining the prominence of REITs in the global investment landscape, noting that they have become a significant asset class within listed property securities.

2. **Global and Regional REIT Markets**: The study discusses the development of REIT markets globally, particularly highlighting their growth in the United States and Asia-Pacific regions. It also covers the introduction and current state of REIT markets in various African countries, emphasizing the different regulatory environments and market sizes.

3. **Performance of REITs in Kenya**: It addresses the performance of REITs in Kenya, which has been less than favorable. Factors such as low uptake, failed public offerings, and underwhelming market performance of REITs like Stanlib Fahari Income REIT are discussed. The study links these issues to potential lack of investor awareness and engagement.

4. **Investor Awareness and REIT Performance**: The core of the study investigates whether there is a correlation between investor awareness and the performance of REITs. It uses advanced statistical methods (like Confirmatory Factor Analysis and regression analysis) to analyze data collected through surveys from various stakeholders in the Kenyan REIT market. The findings suggest that despite a reasonable level of awareness among investors about REITs and the real estate market, this awareness does not significantly influence REIT performance in Kenya.

5. **Conclusions and Recommendations**: The study concludes that although investor awareness in Kenya is relatively high, it has not translated into improved performance or uptake of REITs. Recommendations include reviewing market legislation, considering tax exemptions, and ensuring minimum return guarantees to boost investor confidence in REITs.

This article provides a thorough analysis of the factors affecting REITs in Kenya, particularly the role of investor awareness, and offers insights into potential policy and regulatory improvements to enhance the market.

Another research paper explores the awareness and understanding of Real Estate Syndication (RES), particularly focusing on the Muafakat Harta (Muharta) concept in Malaysia. Here’s a summary of the key points discussed:

1.**Introduction to RES and Muharta**: The study introduces the concept of Real Estate Syndication in Malaysia, referred to as Muafakat Harta or Muharta. This involves a group of investors pooling resources to invest in real estate projects, aiming to reduce individual risks and increase returns through shared investments.

2. **Literature Review**: The paper reviews previous studies and definitions regarding RES, highlighting its popularity and various forms, including crowdfunding for real estate and corporate venture capital. It describes how syndicates are formed, managed, and the benefits they offer, such as distributing risks and enhancing capital appreciation.

3. **Research Methodology**: The study is conducted in the Klang Valley area, utilizing questionnaires covering aspects of RES such as concept, formation, and management. The methodology includes distributing 180 questionnaires, with 150 successfully collected and analyzed.

4. **Findings**: Key findings reveal a general lack of awareness about the Muharta concept among Malaysian real estate investors. Despite some investors unknowingly participating in such syndications, the concept is not widely recognized or understood.

5. **Discussion**: The paper discusses the implications of these findings, suggesting that while RES offers significant opportunities for investors, the lack of awareness could hinder its growth and effectiveness in the Malaysian market.

6. **Conclusion and Recommendations**: The research concludes that increasing awareness and understanding of RES, particularly the Muharta concept, could lead to more widespread adoption among Malaysian investors. Recommendations may include educational campaigns and clearer regulatory frameworks to support and promote RES as a viable investment strategy.

Overall, the study highlights the potential of Real Estate Syndication in Malaysia while pointing out the critical barrier of limited investor awareness that needs addressing to fully capitalize on its benefits.

Another article from reunionhq.in (2023) discusses the importance of raising awareness about the Real Estate (Regulation and Development) Act, known as RERA, to foster the growth of the real estate sector in India. It highlights RERA's role in enhancing transparency, ensuring timely project delivery, and protecting consumer interests. The article emphasizes the need for technology adoption to reduce construction costs, the utilization of available land for planned development, and collaboration between government and industry to support smaller developers. It also stresses the importance of educating all stakeholders about RERA to promote a healthy real estate ecosystem.

The abstract from Kumar, S. et al. (2022) discusses the impact of the COVID-19 pandemic on the real estate market, highlighting a significant downturn during the crisis. It notes the low sentiment scores among real estate stakeholders and the increase in bankruptcies among companies and brokers due to falling investments. The pandemic, especially the more deadly second wave, exacerbated economic difficulties, leading to reduced home ownership rates despite rising property values. The project aims to predict future real estate values in a hypothetical scenario without COVID-19, analyze the differences, and propose solutions to improve the market's current state.

There are also a few articles which are focusing on creating awareness about the potential of the real estate sector. They are summarized below:

1. **Real Estate and Economic Development**: Research has explored how real estate development can significantly impact regional economic growth in underdeveloped areas. One study specifically analyzed the positive influence of the real estate industry on the regional economy of Heyuan City (2021), suggesting that tailored local measures are crucial for the steady growth of the real estate sector in each county.

2. **Policy Framework for Prefabricated Buildings**: Another study examined the policy frameworks for prefabricated buildings in underdeveloped areas in China (2023). It highlighted the importance of adjusting policy instruments and focusing on all stages of the building lifecycle to encourage development that bridges regional disparities.

3.**New Markets Tax Credit Program**: The New Markets Tax Credit (NMTC) program in the United States (2020) is an example of how policy can stimulate investment in underdeveloped areas. By offering tax credits, the program has successfully attracted private investment into disadvantaged areas, promoting business growth, job opportunities, and economic revitalization.

Based on the above literature search, reviews, and analysis, it is safe to say that, there is in fact, some developments and advancements happening in the real estate sector using technology. It is also visible that there are many downsides that needs to be taken care of, by the policy makers, investors and other professionals.

**Strengths, Limitations and Discrepancies from The Literature**

**Strengths:**

1.**Diverse Perspectives**: The collection of articles covers a wide range of topics within the real estate sector, providing insights into various aspects such as market trends, investment vehicles, regulatory frameworks, and technological integration.

2. **Empirical Research**: Some studies, such as the analysis of REIT performance in Kenya and awareness of Real Estate Syndication in Malaysia, employ empirical research methods like surveys and statistical analysis, adding credibility to their findings.

3. **Practical Recommendations**: Several articles offer practical recommendations based on their findings, suggesting actionable steps for policymakers, industry stakeholders, and investors to address challenges and capitalize on opportunities in the real estate market.

4. **Policy Insights**: Articles discussing government initiatives, such as affordable housing schemes and regulatory reforms like RERA in India, provide valuable insights into the role of policy in shaping the real estate landscape and fostering sustainable development.

**Limitations:**

1. **Regional Specificity:** The focus on specific countries or regions in some articles may limit the generalizability of findings to broader global contexts, as real estate dynamics can vary significantly across different geographical areas.

2. **Data Reliability:** The reliability and representativeness of data used in empirical studies, such as surveys conducted for assessing investor awareness or market performance, could be influenced by factors like sample size, response rates, and survey design.

3. **Time Sensitivity:** Given the rapidly evolving nature of the real estate market, the relevance and applicability of findings from older studies may diminish over time, especially in a dynamic environment shaped by factors like economic trends, regulatory changes, and technological advancements.

4. **Potential Bias:** Articles produced by media outlets or advocacy groups may carry inherent biases or agendas that could influence the presentation of information and analysis, potentially leading to skewed interpretations or selective reporting of data.

**Discrepancies:**

1. **Policy Implementation vs. Impact:** Discrepancies may arise between the intended outcomes of government policies or initiatives, such as affordable housing programs or regulatory reforms, and their actual impact on the ground due to factors like implementation challenges, enforcement gaps, or unintended consequences.

2. **Perception vs. Reality:** Discrepancies between investor perceptions and market realities, as highlighted in studies on REIT performance and Real Estate Syndication awareness, may indicate disconnects between stakeholders' expectations and the actual functioning of real estate markets.

3. **Regional Development Disparities:** Discrepancies in real estate development levels and investment opportunities across different regions or cities within the same country may underscore disparities in economic growth, infrastructure development, and policy priorities.

4. **Technological Adoption Rates:** Discrepancies in the pace and extent of technological adoption within the real estate sector could reflect variations in factors like digital infrastructure, market maturity, regulatory frameworks, and industry readiness across different regions or markets.

**Tackling Limitations with Technology**

The above-mentioned discrepancies can be tackled with technologies in question. Addressing these limitations requires:

1. Collaborative efforts between governments, technology providers, and local communities to build necessary infrastructure.

2. Educational programs to raise awareness and train stakeholders in technology usage.

3. Incentives for technology adoption, such as subsidies or tax breaks.

**Conclusion**

The literature review demonstrates that while the potential of technology to revolutionize real estate in rural, semi-rural, and semi-urban areas is immense, the realization of this potential requires strategic planning, collaboration, and sustained investment. Future reviews could focus more on comparative analyses of technology impacts across different regions and longitudinal studies to track long-term benefits and ROI from these technological interventions. Implementing the suggested strategies could provide a robust framework for leveraging technology effectively, ultimately leading to more equitable and widespread economic growth.

**References:**

Dawson, C. (2015) *Projects in Computing and Information Systems: A Student's Guide*. Harlow: Pearson.

Chhillar, S. (February 21, 2024) 5 trends shaping the future of residential real estate in India. *The Times of India.* Available From: <https://timesofindia.indiatimes.com/blogs/voices/5-trends-shaping-the-future-of-residential-real-estate-in-india/> [Accesed 29 April 2024].

Ndund’u, D.T., Kung’u, J.N. (2022) INFLUENCE OF INVESTOR AWARENESS ON PERFORMANCE OF REAL ESTATE INVESTMENT TRUSTS IN KENYA. *Journal Of Business, Economics and Finance* 11(3): 122-129. DOI: 10.17261/Pressacademia.2022.1632

Majid, R.A. et al. (2016) The Awareness of Property Investors on Real Estate Syndication. *Centre for Studies of Real Estate Management, Faculty of Architecture, Planning & Surveying* 6(1): 1-19. Available From: <https://www.researchgate.net/publication/320624161_The_Awareness_of_Property_Investors_on_Real_Estate_Syndication_Centre_for_Studies_of_Real_Estate_Management_Faculty_of_Architecture_Planning_Surveying> [Accessed 29 April 2024].

Guest, A. (2023) Increasing Awareness of RERA for the Growth of Real Estate Sector. Available From: <https://reunionhq.in/blog/untitled-3-2/> [Accessed 29 April 2024].

Kumar, S.A. et al. (2022) Classification of Effect on Real Estates in Mumbai During Covid-19. *SN Computer Science* 3(): 399. Available From: <https://link.springer.com/article/10.1007/s42979-022-01282-y> [Accessed 29 April 2024].

Bai, Y., (2021) Research on the relationship between real estate industry and regional economic development in Underdeveloped Areas. *Proceedings of the 7th International Conference on Humanities and Social Science Research (ICHSSR 2021)*, Atlantis Press. Available From: <https://www.atlantis-press.com/proceedings/ichssr-21/125956668> [Accessed 24 April 2024].

Wang, Q., Gong, Z., Li, N. and Liu, C., (2023) Policy Framework for Prefabricated Buildings in Underdeveloped Areas: Enlightenment from the Comparative Analysis of Three Types of Regions in China. *Buildings* 13(1): 201. DOI: <https://doi.org/10.3390/buildings13010201> [Accessed 24 April 2024].

NMTC, (2020) New Markets Tax Credit: Stimulating Economic Growth in Underdeveloped Areas. Available From: <https://www.vintti.com> [Accessed 29 April 2024].