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Mapping Designpreneur Paradigm for Sustainability Housing of Ministerial in Nusantara Capital City (IKN)

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ABSTRACT

Designpreneurs (a combination of design and entrepreneurs) have gained attention as an innovation paradigm that integrates design creativity with business value, playing a significant role in driving innovation and sustainable value creation. As the national creative economy and the IKN smart design agenda develop, it is important to evaluate research trends related to this concept. **This study aims** to map designpreneurship literature through bibliometric analysis, identifying publication trends, dominant themes, and key actors in this field. **Data were taken** from the Dimensions database (2000–2025), covering 45 articles, analyzed using VOSviewer to reveal collaboration patterns (country, institution, author) and keywords. **The publication** trend has increased sharply since 2016, reaching 10 articles in 2024. Indonesia has emerged as a major hub with strong collaborations with Malaysia, Japan, and China. The Bandung Institute of Technology was identified as the most productive institution. The journals Design, Economics and Innovation, Review of Managerial Science, and Journal of the Knowledge Economy are at the forefront of publications. Dominant research themes include the integration of design thinking, business innovation, and sustainability, indicating a focus on sustainable design innovation. **This study presents** a comprehensive mapping of designpreneurship literature, strengthening the concept of design and entrepreneurship synergy in creative innovation. These findings are relevant to the design strategy of ministerial position houses in the IKN based on local wisdom and sustainability.

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1. INTRODUCTION

1.1. Designpreneurs Concept

The concept of a designpreneur refers to an individual who combines design skills with an entrepreneurial spirit. As creative and innovative professionals, designpreneurs are expected to be able to create design-based products or services that hold business value, meet market needs, and adopt a holistic approach

to innovation and value creation. Designpreneurs are experts in design who can identify market opportunities, take risks, and manage business development from idea to implementation. This integration is more than just merging two disciplines, it is a synergy that fosters a unique way of thinking and acting in facing contemporary challenges [1, 2].

The essence of designpreneurs is the application of design thinking a human-centered, iterative methodology to the entrepreneurial process. This means that rather than starting with a rigid business model, designpreneurs begin with a deep understanding of the needs of their users and the problems they want to solve. This empathetic process involves understanding the audience, accurately defining the problem, ideating to generate creative solutions, prototyping to test viability, and repeatedly testing those solutions to refine them. This iterative approach stands in stark contrast to traditional, often linear business models, allowing for rapid adaptation to feedback and market changes [3–5].

1.2. The Significance of Designpreneur in Innovation and Value Creation

Designpreneurs play a crucial role in driving innovation and value creation across sectors by producing solutions that are technically new, user-driven, and commercially viable [6]. They act as key agents of innovation through design thinking to address market gaps [7], create multidimensional value that builds loyalty, and provide competitive advantage with adaptive business models [3]. They also solve complex problems using holistic and systemic approaches that generate social and environmental impact [8]. Unlike earlier studies focused on SMEs or cultural industries, this research highlights designpreneurship in IKN housing, framing it as a sustainable model integrating local wisdom, cultural identity, smart building principles, and geohazard resilience. More broadly, the combination of design and entrepreneurship fosters co-creation and social collaboration for sustainable market and social value [9]. UNESCO and UN in 2021 reports affirm Indonesia's creative economy as a strategic path for national progress, while design thinking in higher education strengthens entrepreneurial character [10, 11] and iterative approaches prepare students for the digital business ecosystem [12, 13].

1.3. Design of Ministerial Landed Houses in Nusantara Capital City (IKN)

The Indonesian government's new capital city, the Ibu Kota Nusantara (IKN), presents challenges in planning housing for state officials, including ministerial residences that must support productivity, cultural representation, and sustainability [14]. Interior design plays a crucial role in creating a unique visual impression while accommodating green building concepts, smart living principles, and the archipelago's identity, with architectural patterns arranged by function and activity type, and design concepts reflecting Kalimantan's cultural identity. In addition to cultural considerations, the Indonesian Capital Authority's circular letter No. 009/SE/Kepala-Otorita IKN/VIII/2023 provides guidelines for the development of smart buildings, requiring functional compliance to support the vision of "A World City for All". Smart building principles emphasize automation, multi-functionality, adaptability, interactivity, inclusivity, and efficiency, ensuring energy efficiency, comfort, and security, while contributing to sustainable development across sectors [15].

1.4. Research Questions

In line with the focus of the bibliometric study on the theme of designpreneurs, the research questions in this study are formulated as follows:

- How has the trend of scientific publications related to the field of designpreneurs developed over time?
- Who are the most productive authors, institutions, and countries in designpreneurs research, and how have they contributed to the development of literature in this field?
- What are the dominant themes and emerging topics in designpreneurs research identified through keyword and citation analysis?
- How are patterns of international scientific collaboration formed in designpreneurship research, especially seen from the perspective of inter-country and inter-institutional collaboration networks?
- What are the implications of the findings of the bibliometric analysis of designpreneurs for the design strategy of ministerial position houses in the IKN?

2. RESEARCH METHODS

2.1. Data Collection

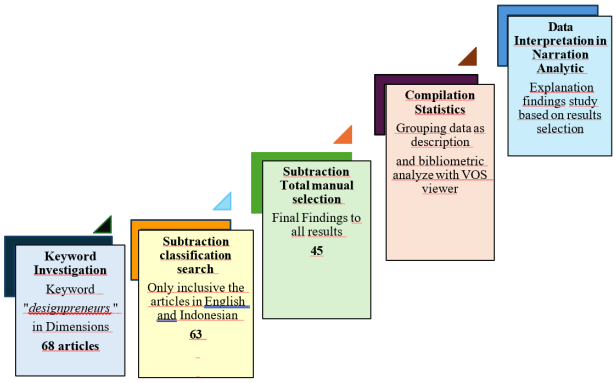

Figure 1. Steps for conducting a bibliometric study of designpreneurs
Source: [16]

The search for articles used to obtain bibliometric data used the Dimensions database by entering the keywords "designpreneurs" "design-preneurs" or "designpreneurs" or "design-preneurship" or "designpreneurship". The use of the Dimensions database ensures high-quality data that has been peer-reviewed. As illustrated in Figure 1, a total of 68 articles were obtained from journals in the Dimensions database between 2000 and the present [17]. The next selection was decided not to use articles that did not use Indonesian and English, 63 articles were obtained, finally the selection of articles that really researched design-entrepreneurs and designpreneurs as well as designpreneurship obtained 45 articles, this selection method is in accordance with the bibliometric systematics, before statistical tests and data interpretation are carried out, it is written as an analytical narrative as a bibliometric article [16, 18].

2.2. Scientific Publication Trends with the Keyword Designpreneurs

Figure 2 shows the evolution of the designpreneurs theme from a marginal issue to a well-established and cross-disciplinary research focus. From only 1 article per year, the consistent surge towards the peak in 2024 confirms that designpreneurship research is now a strategic area that continues to grow, with potential for collaboration in the realms of technology, public policy, and design entrepreneurship education in the future.

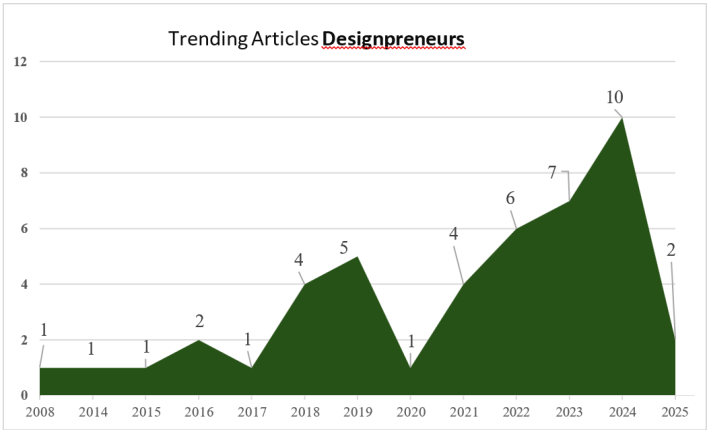

Figure 2. Trend of Publication of Articles "designpreneurs"
Source: Dimensions Database (2025)

2.2.1. Early Stagnant Phase (2008–2015)

From 2008 to 2015, the publication trend of designpreneurs showed a stagnant pattern, there was only 1 article per year throughout this period, indicating that the topic of design and entrepreneurship integration

has not been studied in depth. The focus of research at this stage is generally still centered on creative entrepreneurship in general without highlighting the specific role of designers as drivers of innovative businesses.

2.2.2. Early Interest Phase (2016–2019)

The year 2016 began to show some dynamics with an increase in publications to 2 articles, followed by a gradual spike in 2018 from 4 articles and an initial peak in 2019 with 5 articles. This phase marked the period in which designpreneurs began to be recognized as an important subtopic, along with the development of discourses on the creative economy, business digitalization, and the need for design-based innovation in the SME sector [19].

2.2.3. Advanced Phase (2020–2025)

After falling to its lowest point in 2020 with only 1 article, publications on designpreneurship grew steadily with 4 in 2021, 6 in 2022, and 7 in 2023, reflecting increasing academic interest supported by approaches such as design thinking, effectuation, and Design Authorship theory. A peak was reached in 2024 with 10 articles, likely influenced by the growth of creative business incubation, supportive national policies, and cross-disciplinary collaboration. In 2025, only 2 articles were recorded, suggesting a normal adjustment as research began shifting toward derivative themes such as design business sustainability, personal branding strategies, and digitalization of design management [20–22].

2.3. Bibliometric Analysis

This study used VOS viewer to conduct a multidimensional bibliometric analysis that included analysis of country-couples, organization-couples, author-couples, source-couples, document-couples, and co-occurrence keyword [18]. Clusters were created to align with the designpreneurs theme. The advanced visualization capabilities of the VOS viewer allow mapping of intellectual structures, revealing topic clusters and collaborative networks. This methodological synergy guarantees a complete and methodical synthesis of the literature, in accordance with the highest standards of academic inquiry [23–25]. VOSviewer was chosen because it offers clear visualization and is easier to use compared to Biblioshiny or CiteSpace. VOSviewer was chosen as the main software for bibliometric analysis because of its advanced visualization features that map intellectual structures, keyword co-occurrences, and collaboration networks [26]. Compared to Biblioshiny (an R-based package), it provides a more user-friendly interface, high-quality outputs, and efficient processing of medium-sized datasets such as the 45 articles in this study. These strengths make it effective for visualizing networks of countries, organizations, and authors in a way accessible to readers without coding experience.

3. RESULTS ANALYSIS AND DISCUSSION

3.1. Bibliometric Analysis of Country-Couples

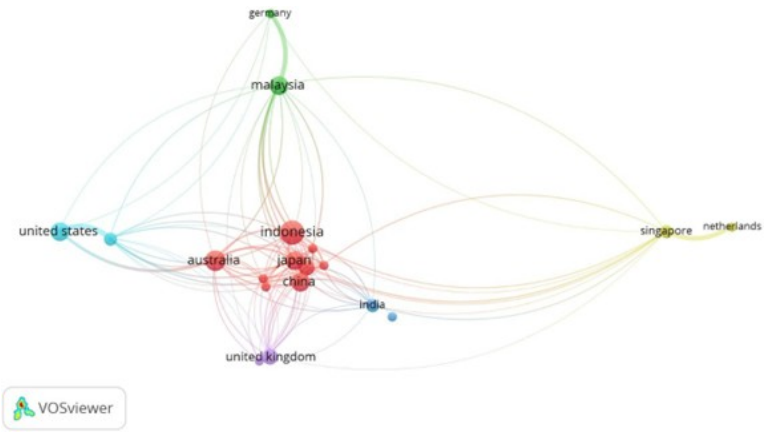

Figure 3. Visualization of the country-couple bibliographic network of designpreneurs
Source: Data processing by VOS-viewer (2025)

The international bibliographic network in Figure 3 shows Indonesia as a major red node with strong collaborations, particularly with Malaysia, Japan, and China, where its link with Malaysia is notable as it

bridges different clusters (Indonesia in red, Malaysia in green) [12, 27]. Other clusters also highlight global actors, with the United States appearing as a dominant light-blue node reflecting its central role in science, Germany in green showing bilateral ties with Malaysia, and Singapore in yellow serving as a hub near the Netherlands, indicating strong collaboration with European partners [28, 29].

3.2. Bibliometric Analysis of Organizational-Couples

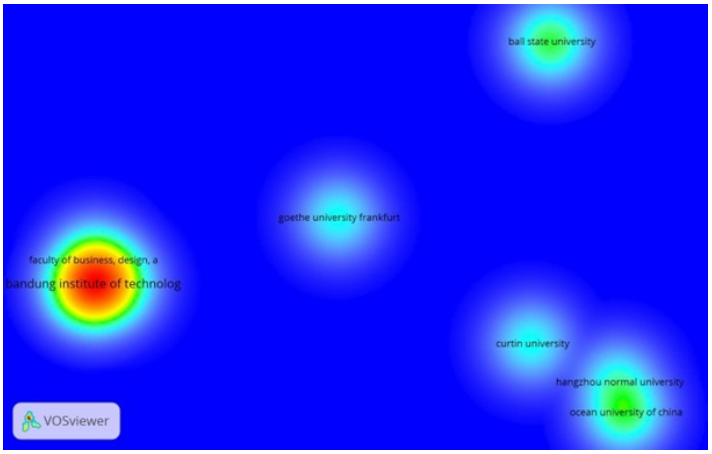

Figure 4. Visualization density of organizational-couple bibliographic of designpreneurs
Source: Data processing by VOS-viewer (2025)

The VOSviewer density analysis in Figure 4 highlights Institut Teknologi Bandung (ITB) as the most intense red zone with 3 documents and 55 citations, confirming its leading role in design-driven innovation and co-creation studies in Indonesia [27]. Swinburne University of Technology (3 documents, 22 citations) and National Taiwan University of Arts (1 document, 25 citations) also appear strongly, reflecting research on creative cultural product innovation and design-driven strategies in Taiwan [30]. Curtin University, Ball State University, Goethe University Frankfurt and Ocean University of China are shown in the blue-green zone with fewer contributions. Ocean University's research on cognitive entrepreneurship and business management gained 11 citations and emphasized the role of knowledge in entrepreneurial development [7, 28].

3.3. Bibliometric Analysis of Author-Couples

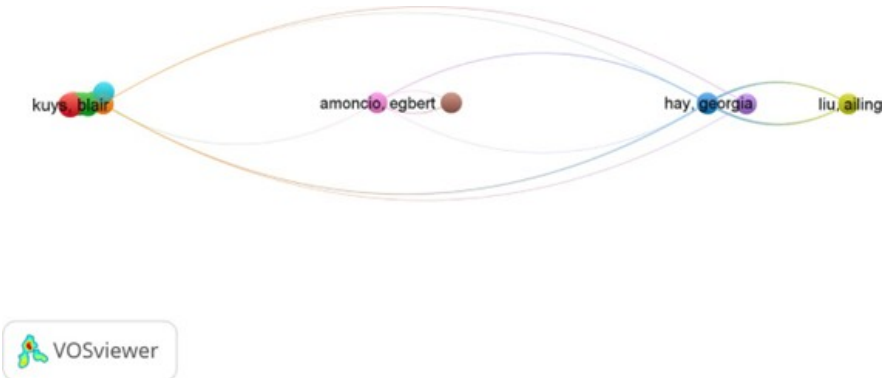

Figure 5. Visualization network of author-couples bibliographic of designpreneurs
Source: Data processing by VOS-viewer (2025)

Based on the VOSviewer visualization in Figure 5, four main clusters (red, blue, yellow, brown) illustrate the author collaboration network. The red cluster centers on [31] with 3 documents and 22 citations, while the blue cluster includes creative design capital (1 document, 29 citations) and Simatupang who examined design-based innovation in the creative industry [32]. The yellow cluster highlights entrepreneurship with

a design orientation through business model innovation [7, 31], and the brown cluster reflects design-led innovation aligned with strategic value in entrepreneurship. These patterns confirm that designpreneurs adopt design-driven innovation processes such as sensing, sensemaking, and storytelling to create new meanings and align project outcomes with partner objectives.

3.4. Bibliometric Analysis of Article Source (Journals)-Couples

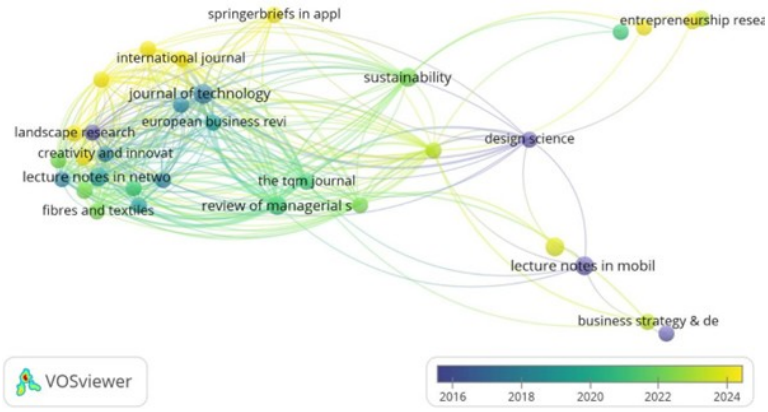

Figure 6. Visualization network of author-couples bibliographic of designpreneurs
Source: Data processing by VOS-viewer (2025)

As shown in Figure 6, journals in the yellow-green cluster, such as Design Science, She Ji: The Journal of Design, Economics, and Innovation, Review of Managerial Science, and Journal of the Knowledge Economy, stand out as centers of new research linking design thinking with business innovation, sustainability, and cross-disciplinary collaboration. For example, [3] identified 16 thematic clusters and proposed five future research directions, while [31] highlighted the role of Human-Centred Design in university–industry collaboration for sustainable modular furniture. Meanwhile, classic journals in the blue-green cluster, including African Journal of Science, Technology, Innovation and Development and Design Science, serve as conceptual foundations, addressing sustainable craft industry development and innovation frameworks that integrate science, design, and entrepreneurship [33], with these insights forming the theoretical basis for designpreneurship models grounded in design thinking and social cognitive theory [34].

3.5. Bibliometric Analysis of Document-Couples

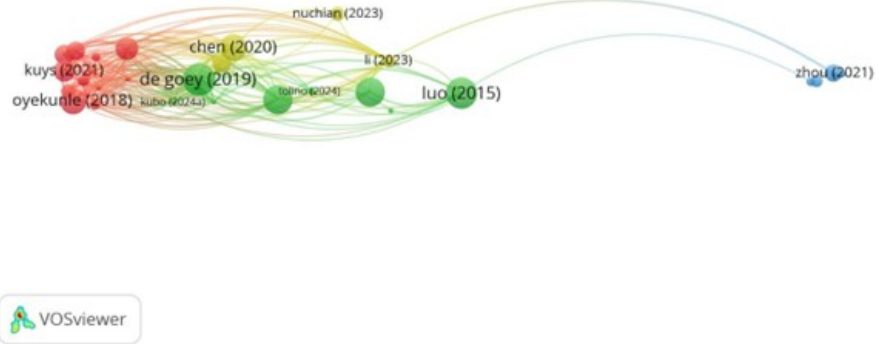

Figure 7. Visualization network of author-couples bibliographic of designpreneurs
Source: Data processing by VOS-viewer (2025)

Figure 7 shows clusters marked by central nodes with high total link strength, indicating key authors at the centre of the collaboration. The red cluster is centered on authors such as [31] on the theme of sustainable design innovation in creative crafts. The green cluster is focused on authors such as [35] who examines design-based innovation and network dynamics in the service industry. The yellow cluster serves as a bridge between design and socio-economic research, led by [36] who examines the ideal model of social entrepreneurship. The

blue cluster is relatively isolated and centres on [7] on entrepreneurial cognition and business model innovation. The relationships between clusters can be analyzed through bibliographic coupling, where the yellow cluster has many bibliographic links with the red and green clusters, while the blue cluster shows minimal links. This constellation illustrates a multidimensional collaboration pattern with key nodes having high link strength.

3.6. Bibliometric Analysis of Co-Occurrence Keyword

Figure 8 shows that the green cluster is dominated by terms such as use, context, improvement, experience and transport, indicating a focus on sustainable mobility policies and strategic utilization frameworks in transport systems. For example, [31] emphasized the need to consider the principle of human-centred design in the development of sustainable public transport systems [37]. The field results in the study identified six key issues in the daily routine of commuters and produced eight recommendations for improvement oriented towards improving the experience and use of public transport modes. These findings underline the importance of integrating context use into mobility policies to encourage more strategic and effective use.

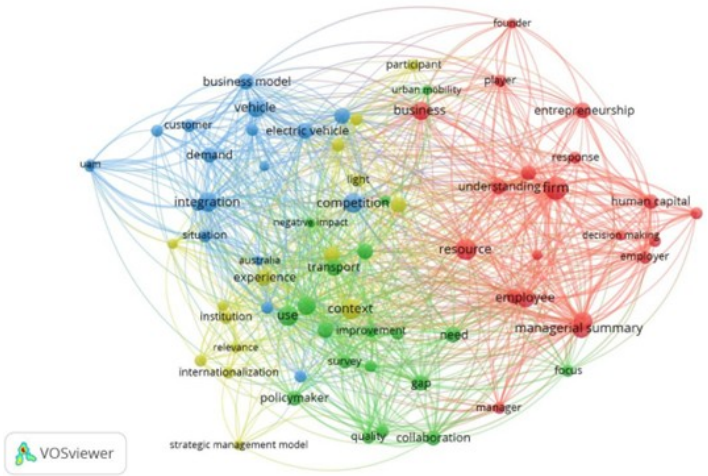

Figure 8. Visualization network of author-couples bibliographic of designpreneurs
Source: Data processing by VOS-viewer (2025)

The red cluster covers terms such as entrepreneurship, employee, human capital, decision making, and management summary, showing the integration of human resources and managerial practices in entrepreneurship, where job design and human capital shape strategic decisions. As shown in Figure 8, research by [22] identified four main mechanisms which are motivation, flexibility, capacity and tension that link founder and employee job design to entrepreneurial outcomes, while [29] showed that entrepreneurship training, including lean management, strengthens human capital for designpreneurs with vocational education. In contrast, the blue and yellow clusters relate to keywords such as integration, institution, and business model, emphasizing technological innovation and institutional reform. Research by [7] highlighted how incubation platforms adapt business models to meet dynamic market demands, particularly in advancing electric vehicle technology as part of sustainable industry transition.

3.7. Further Discussion of Analysis Results

The collaboration network shows that designpreneur studies are dominated by Indonesian clusters strongly connected to Malaysia, Japan, and China, positioning Indonesia as the main hub, while the US, Germany, and Australia dominate globally and European clusters remain more fragmented [27]. The prominence of ITB and collaborations with Swinburne, NTUA Taiwan, and Curtin highlight the role of universities in designpreneurship and human resource capacity building [**?**]. Bibliometric overlay also reveals a shift toward interdisciplinary journals such as Design Science and She Ji, while classic journals provide the conceptual basis. Research by [7] emphasized how entrepreneurial cognition and business model innovation act as bridges between clusters, and [3] confirmed that business models and innovation networks remain central in entrepreneurship studies. These findings indicate that current designpreneurship publications integrate innovative design literature with modern entrepreneurial theory, strengthening the design-led entrepreneurship paradigm.

Keyword repetition analysis reveals two main axes, the red cluster emphasizes entrepreneurship and human resources (entrepreneurship, human capital, decision making), while the blue/yellow cluster highlights integration, institution, and business model, showing a shift toward institutional and business model innovation. The green cluster reflects application and improvement, aligning with design thinking practices [38]. Overall, this constellation shows the maturity of designpreneurship themes from entrepreneurial aspects to institutional integration, consistent with literature connecting design thinking and entrepreneurship [3**?**].

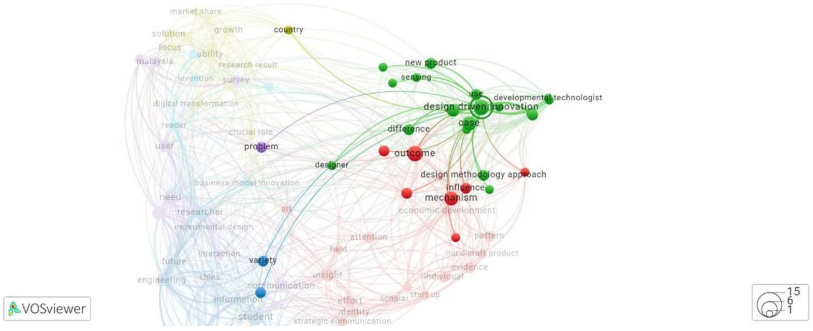

Figure 9. Design driven innovation keyword network
Source: Data processing by VOS-viewer (2025)

The keyword design driven innovation is interesting to deepen its relationship with other keywords. Tt can be noted that it not only requires driving force but also collaboration with technology experts and the right design method approach. As shown in Figure 9, [31] supports the results of this analysis. The results of a case study of designing furniture, [31] concluded that a design method that is centered on the user's human will accurately reflect the user's intentions so that the design can last a long time, this design method is called Human-Centered Design (HCD). HCD is recommended to have been carried out in phase 1 of the design process [39].

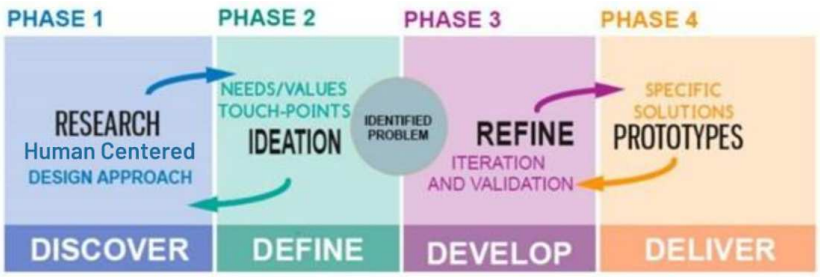

Figure 10. Human-centered design phase in the design process
Source: [31]

As illustrated in Figure 10, the project began with a survey of 20 questions on user likes and dislikes, with results analyzed using SPSS to guide the direction of furniture design. In Phase 2, the design team brainstormed concepts emphasizing ease of construction, flexibility, customization, comfort, and privacy. Phase 3 involved evaluating all concepts through a weighted feedback method, where technical members scored and categorized comments to select the final concept. Phase 4 then developed the chosen design concept, informed by stakeholder feedback, survey results, and team reviews, ensuring alignment with user needs and practical feasibility.

4. GENERAL IMPLICATION

Bibliometric results can be linked to local and sustainable interior design strategies in IKN. Strategic design in IKN that emphasizes local cultural wisdom and multi-stakeholder collaboration, in accordance with the official principles of IKN which stipulate that all public spaces adopt the principles of accessibility, local cultural wisdom, and inclusive design.

4.1. Collaboration and Innovation of Creative Business Models

The designpreneur concept requires project managers to promote cross-disciplinary collaboration among designers, academics, and technology industry players, as studies show such collaboration supports knowledge transfer and innovative solutions. Partnerships between design firms and technology companies integrate digital tools into design processes, while innovative business models must leverage digitalization and sustainability [40]. Beyond universities, smaller schools and cultural groups can apply designpreneurship by using AI tools and upgraded LMS platforms, enabling customized curricula, documentation, and commercialization of local knowledge. This extends designpreneurship from academic institutions to grassroots communities, ensuring inclusivity in creative economy and housing design strategies [41]. Research also shows that entrepreneurs adopting digital innovation and sustainable models gain stronger competitiveness, highlighting the need for project management units to design creative strategies such as technology-based platforms and business systems that combine creativity, cultural values, and sustainability orientation.

4.2. Strengthening Local Wisdom and Sustainability Principles

In the context of IKN, ministerial residences must combine local cultural identity with modern architectural principles. Local elements appear through natural materials such as wood, stone, and rattan, as well as traditional Nusantara spatial concepts adapted to tropical climates, while modern values such as technology use, minimalist design, and space efficiency support sustainability. This synergy creates interiors that are contextual, functional, and energy efficient [42]. Managerially, material and furniture procurement should involve local communities to add value and ensure ecological aspects, for example renewable resources and natural lighting. Table 1 illustrates the integration of smart building systems requiring planning, design, review, implementation, and evaluation [15]. This approach aligns with design education programs that emphasize project management rooted in cultural phenomena and SDGs, where housing design harmonizes Nusantara aesthetics and modern efficiency. The integration of local wisdom and sustainability is evident in renewable materials, vernacular features like wide roof overhangs and natural ventilation, and eco-friendly practices such as rainwater harvesting, green spaces, and passive cooling, all of which preserve culture while enhancing sustainability and resilience in IKN residences [43].

Table 1. System Integration Matrix

System	Access Control	Communication	Energy	Air Condition	Lighting	Mobility	Resources	Safety	Security
Access Control		✓		✓	✓	✓	✓		✓
Communication	✓			✓		✓		✓	✓
Energy				✓	✓	✓	✓		✓
Air Condition	✓	✓	✓			✓	✓	✓	✓
Lighting	✓		✓			✓	✓	✓	✓
Mobility	✓	✓	✓	✓	✓				✓
Resources	✓		✓	✓	✓				✓
Safety		✓		✓	✓				✓
Security	✓	✓	✓	✓	✓	✓	✓	✓	

Source: [15]

4.3. Implementation of Smart Building Technology

Figure 11 is the Integrated Smart Building Management System as the basic concept of smart buildings in the IKN. The ministerial residence should incorporate automation and digitalization technologies to improve operational efficiency. The Nusantara Smart Building Guidelines emphasize that smart buildings must be able to improve energy, time, and cost efficiency through real-time data and automation. The use of sensors and predictive maintenance can prevent major damage and save time and repair costs. Automation systems also allow for automatic lighting and temperature settings, which improve the occupant experience through environmental personalization [44], [15].

Thus, facility managers need to adopt an open platform based on the Internet of Things (IoT) and a digital twin model to monitor building performance comprehensively. For example, a digital twin model can display building energy data virtually so that managers can analyze energy usage, detect system failures, and plan more optimal maintenance [45]. This approach is consistent with the principles of green buildings, which emphasize energy efficiency, irrigation water use, and environmentally friendly material and waste management in construction. Therefore, the management team needs to design an integrated building control system (BMS) that includes smart meters, sensor networks, and integrated control panels according to the recommendations of the guidelines [46], [15].

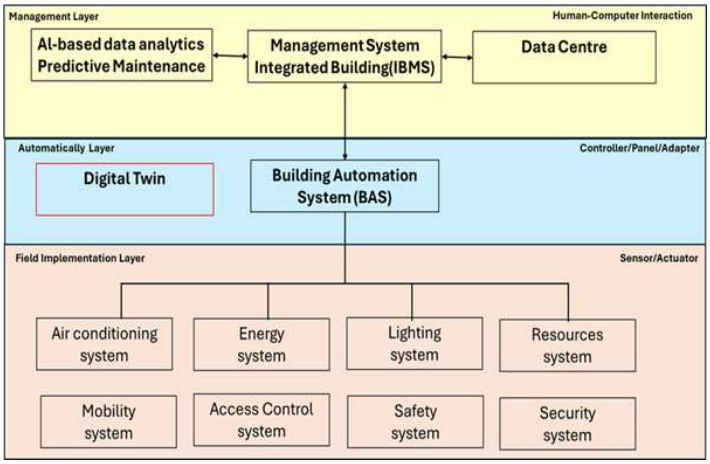

Figure 11. Integrated Intelligent Building Management System
Source: [15]

4.4. Resilience to Geohazards and Disasters

Another important implication is ensuring the resilience of structures and infrastructure to natural disasters in the IKN. Geological analysis of the IKN notes that earthquakes, landslides, and floods are significant threats to the area [41]. Although in general the IKN is relatively far from major earthquake sources, the location of the IKN is close to three major faults (Tarakan, Pastenesfer, Maratua).

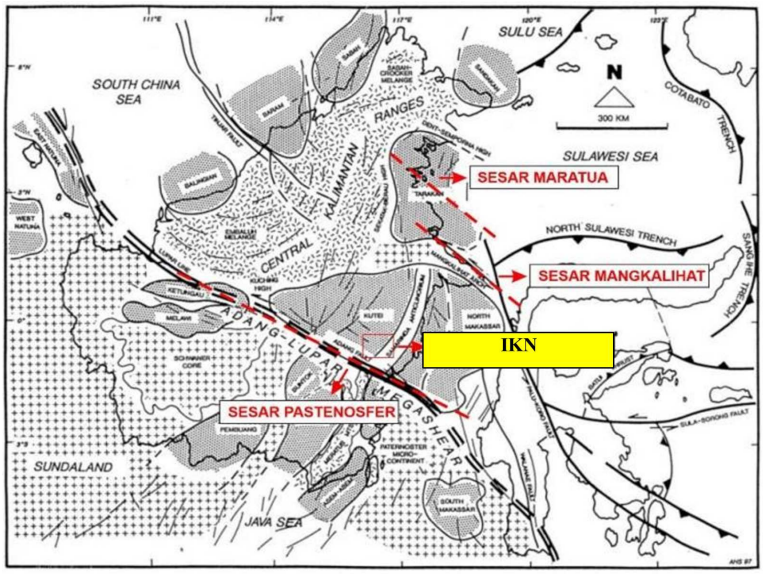

Figure 12. Tectonic Framework of Kalimantan Island and Surrounding Areas
Source: [47]

The design of the foundation and structure of the minister's house must meet earthquake-resistant standards (e.g. SNI 1726) and consider local soil conditions, including the potential for expansive soil. In terms of flood mitigation, project management needs to integrate high-capacity drainage solutions, raised ground floors, and conversion of infiltration land. This approach has been applied on a city scale. The IKN Authority is carrying out reforestation and building water reservoirs to control flooding and conserve water. This principle can be applied to the design of the minister's house by planting trees in strategic locations and connecting the rainwater reservoir system to the city reservoir. An early warning system for earthquakes/floods and soil moisture monitoring must also be installed so that the management team can be responsive. All of these steps will ensure that the official residence remains safe and operational even when faced with potential disasters [48].

4.5. Additional Evaluation and Recommendations

Overall, interior design for ministerial landed houses in IKN must integrate local wisdom with sustainable principles by adding strategic features. First, the use of Building Information Modeling (BIM) and lean management should be applied from the planning stage to strengthen designpreneurs' capabilities, improve coordination, optimize resources, and reduce waste, in line with PUPR's direction [15]. Second, modular or prefab architecture can accelerate construction and allow future adaptation. As shown in Figure 13, smart building concepts should be applied through energy-efficient glass to minimize air conditioning use and by following the smart building management system guidelines issued by OIK [15, 49].

Figure 13. Designpreneurs concept of interior design of ministerial landed houses in IKN
Source: Design by Ika Yuni Purnama (2025)

Third, local wisdom should be strengthened by involving residents in providing input on interior design and entrepreneurship values, for example using local handicrafts as living room decorations [49, 50]. Fourth, disaster protection must be integrated, such as smart kitchens with zero emissions, waste sorting systems, eco-friendly incinerators, and careful planning of floor elevation, gutters, and rain catchment areas in accordance with IKN standards [51–53]. Fifth, human-centered design should combine proper design principles with local cultural values, both tangible and intangible, with standardized documentation to preserve harmony when future changes occur [31].

For policymakers, bibliometric findings provide evidence to design regulations that integrate designpreneurship into housing policy through incentives for cultural integration, green building standards, and resilience against geohazards. Authorities can use clusters of innovation and collaboration to prioritize partnerships with universities, creative communities, and technology providers in shaping IKN housing guidelines. For developers, the study offers guidance to adopt design-driven business models that merge cultural sustainability with smart building technologies, including modular designs, collaboration with local artisans, and IoT systems for energy efficiency and disaster monitoring. In practice, policymakers can embed sustainability and digitalization in regulations, urban planners may apply tools such as BIM and zoning for ecological balance,

and designpreneurs are encouraged to co-create with local communities to ensure innovation that is competitive and culturally grounded. Moreover, the findings align with SDG 9 and SDG 11, where designpreneurship supports resilient infrastructure, industrial innovation, and sustainable communities, reinforcing its role in advancing both creative economy discourse and global sustainability goals.

5. MANAGERIAL IMPLICATIONS

The findings of this study offer several important managerial implications for the design of ministerial housing in IKN. Local wisdom should be preserved through adaptive design concepts that harmonize cultural values with natural environmental conditions. Sustainability must be integrated by utilizing renewable materials, ensuring energy efficiency, and incorporating smart technologies to support long-term environmental performance. Disaster resilience should be embedded through responsive structural design and reliable supporting infrastructure. Furthermore, applying a human-centered design approach ensures that technical standards remain aligned with cultural identity, resulting in residential spaces that are efficient, sustainable, and resilient while reflecting IKN's vision as a modern city rooted in tradition.

6. CONCLUSION

This study presents one of the most comprehensive bibliometric mappings of designpreneurship, highlighting Indonesia's position as the central hub of global collaboration, with strong networks involving Malaysia, Japan, and China. Keyword analysis and author collaboration patterns show consolidated research clusters focused on innovation, business models, and design-driven entrepreneurship. These developments indicate that designpreneurship has matured into a field that integrates design thinking with business innovation and sustainability, shifting its orientation from mere product creation toward user experience and environmental concerns.

The novelty of this research lies in contextualizing designpreneurship within the domain of housing design, particularly in the development of ministerial residences in IKN. By integrating design-driven innovation, smart building technologies, and local wisdom, the study demonstrates how residential design can be positioned within the creative economy landscape. Network and thematic analyses reveal emerging themes such as knowledge integration, design-driven innovation, and the crucial role of human capital, thereby enriching current literature with new perspectives that connect creativity, technology, and sustainability.

Despite its contributions, several limitations must be acknowledged. The reliance on Dimensions as the primary database may exclude local or non-indexed literature, limiting the scope of the dataset. Additionally, the evolving and non-standardized definitions of designpreneurship risk overlooking related terms. Dependence on citation metrics and link strength also requires caution when making broader generalizations. These limitations underscore the need for future studies to refine conceptual definitions, broaden database coverage, and strengthen methodological approaches to provide a more comprehensive understanding of designpreneurship.

7. DECLARATIONS

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7.2. Author Contributions

Conceptualization: RD; Methodology: GG; Software: DD; Validation: RA and IY; Formal Analysis: DD and IY; Investigation: GG; Resources: RD; Data Curation: RA; Writing Original Draft Preparation: GG and RA; Writing Review and Editing: IY and RD; Visualization: GG; All authors, IY, DD, GG, RA, and RD have read and agreed to the published version of the manuscript.

7.3. Data Availability Statement

The data presented in this study are available on request from the corresponding author.

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7.5. Declaration of Conflicting Interest

The authors declare that they have no conflicts of interest, known competing financial interests, or personal relationships that could have influenced the work reported in this paper.

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