Convergence of public library spaces in South Korea: User insights on motivations and collaboration

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ABSTRACT
This study explores the evolving role and function of public libraries as essential physical spaces in the information age, with a focus on user perspectives regarding the need for convergence and collaboration within library spaces and potential approaches for implementing this convergence in South Korea. Using a qualitative approach, interviews were conducted with 58 university students in their 20s and 30s who have experience using public libraries. Findings indicate that users view convergence as a way for public libraries to remain relevant by integrating various services and fostering partnerships that enhance community engagement. These insights provide practical recommendations for library administrators and policymakers on physical and institutional convergence strategies in public libraries, contributing valuable knowledge to this evolving area.

Keywords: Public library spaces; Physical convergence; Institutional convergence; Convergence paradigm; Library collaboration strategies.

INTRODUCTION

As digital technology continues to proliferate, the role of public libraries has evolved, emphasising their potential as dynamic, multifunctional spaces with expanded physical meanings and community-centred services. Public libraries are increasingly viewed as essential hubs for community engagement, education, and cultural enrichment, reflecting various perspectives on their relevance in the digital age (Vårheim et al., 2019). Recently, the convergence of public libraries with surrounding spaces and institutions has drawn scholarly attention (Kawamoto & Koizumi, 2023; Mehtonen, 2016; Million & Moulaison, 2014; Warren & Matthews, 2020; Willey, 2017). This convergence emphasises collaborative frameworks that integrate resources and services to better meet the diverse needs and expectations of users (Warren & Matthews, 2019). Through such integration, public libraries can extend their roles to beyond information provision to include support for learning, exploration, collaboration, and innovation, thereby fostering an inclusive, user-centred environment (Capillé, 2016; Martin, 2007; Marty, 2014; Robinson, 2016).

Beyond the simple merging of resources, convergence in public libraries signifies a broader transformation that integrates educational, cultural, and recreational offerings within library spaces, blurring traditional boundaries to meet a wide range of community needs (Lenstra, 2022). As a result, libraries become dynamic spaces where users can enhance their learning experiences in adaptable, flexible environments. The concept of "convergence" involves combining diverse functions within a single building or in closely located sites, creating multifunctional settings that cater to varied user demands (Million & Moulaison, 2014). In recent decades, evolving user needs, rapid digital innovation, and an emphasis on lifelong learning have expanded the role of public libraries beyond their traditional information services (Bilandzic & Foth, 2013). This shift highlights the important role of convergence in addressing complex challenges, such as identifying collaborative partners, clarifying stakeholder roles, and developing effective methodologies for library services. Achieving successful convergence requires a deep understanding of library users' perspectives, as their needs and preferences are essential to creating functional and engaging converged spaces.

In South Korea, convergence efforts focus on creating multifunctional public library spaces to address regional limitations and meet diverse community needs (Han, 2024) National policy has increasingly supported public library convergence, investing in expanded convergence facilities and Social Overhead Capital (SOC) (Koo et al., 2019). While approaches to library convergence differ by country, influenced by political, technological, cultural, and economic factors (Warren & Matthews, 2020), establishing supportive regulations and systems has been crucial in driving this transformation in South Korea (Ministry of Culture, Sports and Tourism, 2019).

Convergence has also become a research and policy priority in South Korea, with recent studies highlighting the value of integrating spaces and functions across institutions (Lee, 2020). This study, therefore, aims to identify the need for convergence in public library spaces from a user-centred perspective and to explore strategies for establishing a convergence paradigm in South Korea. By addressing these objectives, the study seeks to inform library practices and policies, ultimately contributing to the development of more effective and inclusive public library environments. Specifically, this study investigates three primary research questions from a user-centred perspective:
(a) What motivates public libraries to consider converging their spaces?
(b) What types of collaborations can facilitate the convergence of public library spaces?
(c) What strategies can be employed to achieve the convergence of public library spaces, and what roles do various stakeholders play in this process?

By exploring these questions, the study aims to provide actionable insights that support the development of converged library spaces tailored to the needs of diverse communities.

LITERATURE REVIEW

Convergence of Public Libraries
Recent shifts in public library spaces to align with evolving user expectations and technological advancements have sparked a growing interest in spatial convergence. The Council on Library and Information Resources (2005) emphasised the importance of flexible library designs to accommodate diverse functions and foster user interactions. Cleyle (2009) analysed the rise of learning commons within libraries, advocating for integrated services to support collaborative learning environments. Million and Moulaison

(2014) noted that convergence technologies have entered libraries through the range of materials they collect, maintain, and the events they host. They argued that convergence is essential for understanding how content is now accessed, consumed, and utilised in libraries, helping users who prefer a "one-stop shopping" experience to find suitable information efficiently. Fourie (2013) explored the emerging collaboration between libraries and technology organisations, which has led to innovative information support models. Similarly, Mehtonen (2016) highlighted libraries' evolving roles in the digital age and stressed the importance of physical space design in meeting patrons' multifaceted needs. Collectively, these studies illustrate how libraries have transformed into adaptable spaces that blend physical and digital resources to enable meaningful user interactions. More recently, Garoufali and Garoufallou (2022) examined libraries as collaborative learning hubs, focusing on how physical spaces are adapting to user needs in the digital era by promoting active learning, information sharing, and group collaboration.

In the digital era, public libraries are evolving into dynamic hubs for community engagement and cultural enrichment (Mehra & Srinivasan, 2007; Mehtonen, 2016). By integrating physical and digital resources, services, and programmes, libraries now go beyond traditional information provision to enhance digital literacy, broaden information access, and foster community involvement, responding to diverse and changing user needs. This shift necessitates rethinking library layouts to seamlessly incorporate both longstanding and emerging functions (Shiwa et al., 2023).

The concept of convergence among cultural institutions, particularly libraries, museums, and archives, has garnered significant interest. Warren and Matthews (2020) emphasise that this convergence creates vibrant cultural spaces, enabling unique educational and recreational experiences. Similarly, Vårheim et al. (2019) explore institutional convergence across the library, archive, and museum sectors, suggesting a framework to address the challenges of such integrative efforts. Studies on library convergence have often focused on amalgamations within broader cultural alliances, including terms such as LACHIVIUM (libraries, archives, and museums), LAM, GLAM (galleries, libraries, archives, museums), and ALM (archives, libraries, and museums), as highlighted by Warren and Matthews (2019). This integrative approach reflects a broader trend toward creating multifunctional spaces that enrich cultural and informational landscapes, adapting libraries to the expectations of modern users.

Convergence of Public Libraries in South Korea

According to findings from the Ministry of Culture, Sports and Tourism (2021), public library users in South Korea express a strong preference for "space improvements" that enhance comfort, ambiance, spatial expansion, and clear functional zones within libraries. This demand points to a growing need for reading environments that not only provide easy access to books but also offer integrated cultural spaces for diverse community experiences. Such changes reflect a necessary transformation in the public perception of libraries in South Korea, moving beyond their traditional role as places for accessing materials and facilitating learning (Ministry of Culture, Sports and Tourism, 2019; 2021). While libraries continue to serve as information hubs, they are increasingly embracing convergence with advanced information and communication technologies (ICT) and responding to the expanding, multifaceted needs of users. This shift underscores the evolving role of public libraries in South Korea, positioning them as adaptable spaces that foster both intellectual and cultural engagement.

The integration of libraries with cultural and sports facilities in South Korea is garnering scholarly interest. Local governments increasingly recognise the advantages of creating multifunctional centres, exemplified by complexes such as the *Hanbat Library* in Daejeon (Kim, 2023), which includes a swimming pool, gymnasium, community centre, and childcare services. These initiatives appeal to a wide audience by combining culture, sports, and community services within a single space. Similarly, the *Gwanggyo Wellbeing National Sports Centre* (Lee, 2020) incorporates sports facilities within a library environment, encouraging physical activity alongside cultural engagement. Upcoming projects, such as the *Shinhyeon Culture and Sports Centre*, further reflect the government's commitment to multifunctional spaces, highlighting how these facilities can promote holistic community development (Han, 2024).

Kang (2022) examined the functional integration of facilities within comprehensive Social Overhead Capital (SOC) projects, with a focus on multifunctional cultural and sports centres. This study highlights the significance of convergence and fusion processes among project stakeholders, emphasising the need for collaboration between stakeholders and experts to ensure successful integration and the creation of multifunctional spaces. Kang advocates for well-defined design guidelines to facilitate these collaborative processes. A prominent example is the *Gunpo City Daily Life SOC Integration Project,* which expands into nature-friendly spaces such as forests (Kim, 2019) and revitalizes underutilised areas to offer a variety of community experiences. Public libraries are increasingly transformed into multipurpose centres, incorporating gyms, health centres, childcare facilities, and shared childcare centres. Although interest in such integration is on the rise, qualitative research on public library convergence in South Korea from a Library and Information Science (LIS) user perspective remains limited, pointing to a gap in understanding user needs and experiences in these converged spaces.

METHOD

The study aimed to capture a comprehensive and diverse sample by selecting respondents from key age groups likely to engage with public libraries in the current environment. A qualitative research method was employed to gather detailed insights into users' perceptions and perspectives on the convergence of spaces in public libraries. Data were collected through interviews with 58 participants (P1–P58) conducted between March and June 2023 in City G, Korea, focusing on their views on spatial convergence in public libraries. The participants, aged between 20 and 30 years (mean = 23.9, SD = 3.85), included 12 males and 46 females from varied academic fields. Approximately 79 percent (46 respondents) had visited a public library within the past year. This sample size was designed to capture a range of insights and support the emergence of recurring themes (see Table 1).

Before conducting the interviews, participants received a detailed overview of the study's goals and the concept of convergence libraries, with relevant examples from Korea. The interviews were conducted using a semi-structured format to aid participants in understanding and responding effectively to the questions (see Table 2 examples of interview questions. A qualitative research approach was chosen because it "focuses on discovering new or unique perspectives on an issue and gaining a deeper understanding of a topic" (Crabtree & Miller, 1999, p. 118; Lindberg et al., 2006, p. 77). Participants were informed of their right to withdraw at any point, and interviews were recorded with their

consent and promptly transcribed. Anonymity was assured, with respondents explicitly informed that their data would be used solely for research purposes.

Table 1: Demographic Characteristics of Interview Participants (N=58)

Variable	Category	Frequency count	Percentage
Gender	Male	12	20.7
	Female	46	79.3
	Total	58	100.0
Age group	20-24 years	43	74.1
	25-29 years	7	12.1
	30-34 years	4	6.9
	35-39 years	4	6.9
	Total	58	100.0
Education level	Undergraduate	52	89.7
	Postgraduate	6	10.3
	Total	58	100.0
Public library usage	Once-Twice a week	2	3.5
	Once every two weeks	36	62.1
	Once a month	8	13.7
	Rarely	12	20.7
	Total	58	100.0

Table 2: Interview Questions for Exploring Perspectives on Public Library Convergence

Topic	Example questions
Convergence Reason	What do you perceive as the primary reasons for the convergence of spaces in public libraries? In your opinion, why is it important for public libraries to focus on both physical convergence and divergence?
Convergence Collaboration	How do you believe the physical convergence of public libraries is related to collaboration with other community organizations? Which type of convergence in public libraries do you find most appealing, and what factors contribute to your preference?
Convergence Method	What strategies do you think public libraries could implement to achieve space convergence effectively? In your view, who should take the lead in facilitating the convergence of public library spaces, and what roles might they play?

Thematic analysis, as described by Braun and Clarke (2006), was employed to identify key themes and patterns in the data (Figure 1). This method provides a flexible framework for exploring qualitative data without being bound by theoretical constraints, facilitating the discovery and understanding of emerging themes and patterns (Castleberry & Nolen, 2018). Furthermore, thematic analysis allows for a comprehensive examination of data, enhancing the clarity and depth of analytical insights (Scharp & Sanders, 2018). This study adhered to the six-step process for conducting thematic analysis (Figure 1). During the coding and analysis phases, the researchers observed recurring patterns in the data, indicating that no additional novel insights were emerging from new respondents. This observation suggested that saturation had been reached, confirming that the dataset was both sufficient and aligned with the study's objectives. As a result, data collection was concluded, enabling the researchers to focus on a detailed analysis of the findings.

To enhance the research findings' validity and reliability, respondents were verified to ensure their engagement and cooperation. Peer reviews were utilised to address potential researcher bias or limited perspectives. Audit trails were established to document the coding process, decisions, and interpretations, resulting in a coding book that underwent consensus through peer review, enhancing credibility and transparency.
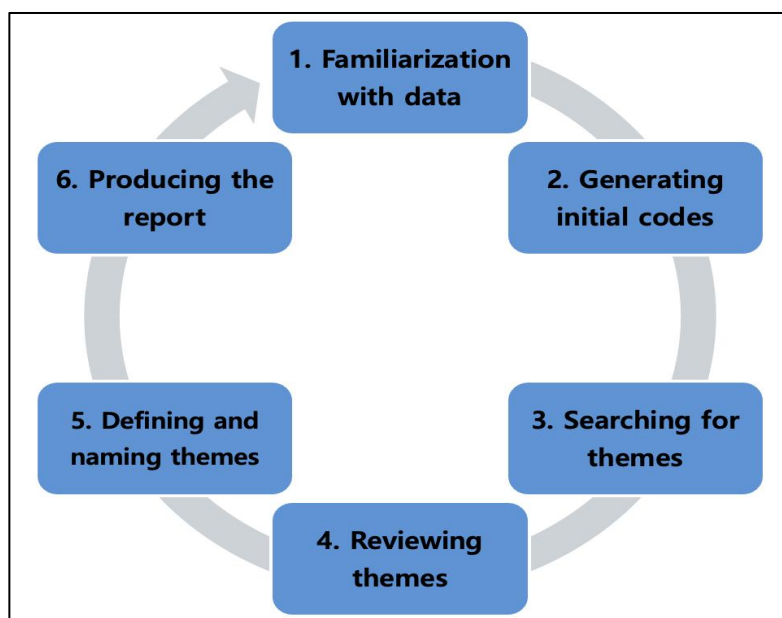
Figure 1: Six-Step Process for Conducting Thematic Analysis
(Adapted from Braun & Clarke, 2006)

FINDINGS

What Motivates Public Libraries to Consider Converging Their Spaces?
The findings of this study reveal that public libraries are motivated by three key aspects: (a) optimizing the use of space to enhance functionality; (b) catering to the diverse needs of users to remain relevant; and (c) fostering synergistic interactions that create greater value for the community.

(a) Optimizing the use of public libraries
Fifty-six respondents (96.6%) emphasised that merging public library spaces could significantly enhance user motivation and engagement. Many noted that this strategy is particularly important for addressing the perception among younger generations that libraries are primarily for borrowing books or studying, often overlooking their broader roles. With declining physical visits, spatial convergence was viewed as essential for increasing library utilization and encouraging more frequent visits. One participant expressed this sentiment, stating: *"I believe that libraries are perceived solely for borrowing books or studying. As libraries also operate as enterprises, I consider patrons to be crucial. To invigorate public libraries, I think there's a need to attract a larger number of people."* (P24, 22 years old, male, uses public library once every two weeks).

Furthermore, respondents highlighted that the convergence of public library spaces is essential, as it can lead to incidental increases in library usage by providing diverse programmes and convenient services in multiple formats. This integration of varied spaces

is seen as a strategy to enhance user motivation, ultimately driving a significant rise in library engagement and usage.

(b) Catering to the diverse needs of users

Another key reason for integrating public library spaces is the diversity of users' needs. Library patrons have a wide range of expectations and preferences, underscoring the importance of spatial convergence. Over 75% (N=44) of respondents noted that libraries would be more beneficial if they offered opportunities for multiple activities beyond traditional services. As public facilities, libraries could increase utilization and serve as dynamic, multi-purpose spaces by accommodating various activities. One participant explained: *"When I go to the library, if it offers something other than just books to read, such as services that would relax me or enhance my experience, I feel I could have a more diverse experience. Thus, I believe that a culturally integrated library is better."* (P5, 26 years old, female, uses public library once every two weeks)

Furthermore, 29 respondents (50%) highlighted that while they frequented libraries, they had diverse requirements for engaging in different activities, reinforcing the need for versatile and inclusive library spaces. Some respondents emphasised the importance of preserving the core functions of public libraries while adapting to external trends and environmental changes. They believed that the convergence of library spaces could be instrumental in addressing diverse user needs by offering user-focused, integrated services, thereby creating significant local value across multiple domains.

(b) Fostering synergistic interactions

The convergence of public library spaces is seen as essential for enhancing spatial economy and efficiency, leading to synergistic benefits. This perspective is based on the idea that integrating two or more institutional facilities within the same building or adjacent spaces can produce greater collective value and outcomes than operating independently. Sixty-five respondents emphasised that convergence could help address accessibility challenges faced by libraries, noting that co-locating multiple institutions would offer added convenience. One respondent elaborated, *"Aligning the convergence of libraries with current trends enables us to enhance their accessibility while optimizing spatial efficiency. Furthermore, if facilities emerge where different activities can be conducted together, it could potentially invigorate library usage."* (P44, 31 years old, female, used public library once every two weeks)

Moreover, 34 respondents (59%) indicated that the convergence of public library spaces could foster interaction and collaboration among local community members, thereby promoting community vitality and generating synergistic effects. In this context, respondents underscored the importance of integrating various institutions and facilities within public library spaces to enhance both economic efficiency and synergy. This further emphasises the potential of spatial convergence to make libraries more accessible, functional, and engaging for a broad range of users.

What Types of Collaborations Can Facilitate the Convergence of Public Library Spaces?

The findings highlight three key types of collaborations that can drive the convergence of public library spaces: leisure, educational, and lifestyle. These collaborations not only enrich the library experience but also align library spaces with the evolving needs of diverse user groups, creating a dynamic and multifunctional environment.

(a) Leisure collaboration

Cafés emerged as a key component in envisioning collaborative public library spaces, with 47 (81%) respondents highlighting their potential. Participants viewed cafés as hubs for relaxation, study, and diverse activities, foreseeing them as catalysts for closer integration with library resources and enhancing the overall library experience. Additionally, 42 (72.4%) preferred formats such as study cafés, where patrons could casually engage with library materials while enjoying café amenities, highlighting the synergy between library services and café atmospheres. As one participant noted: *"Cafes are frequented by individuals for various purposes, including relaxation and studying. If cafes and libraries were to converge, it seems that people would be able to engage more closely with libraries."* (P22, 21 years old, female, uses public library once every two weeks).

Additionally, many respondents emphasised collaborations with shopping malls and cultural centres as strategies to enhance the functionality of public libraries. Others recognised the integration of outdoor spaces, such as gardens and benches, as essential for creating a more synergistic library environment. Furthermore, 39 respondents (67.2%) envisioned potential synergies with a range of spaces, including cinemas, lecture halls, performance venues, board game centres, and pet cafés. These responses collectively highlight the view that the convergence of public libraries with diverse spaces caters to various preferences and purposes, promoting greater interaction with local communities.

(b) Educational collaboration

Forty-one respondents (70.7%) expressed a desire for public libraries to integrate with institutions offering social, cultural, and educational experiences. This collaboration would provide a comprehensive mix of educational, social, and cultural opportunities, aligning with users' desire for enriched learning environments. Respondents in their 20s showed particular interest in merging libraries with IT facilities, advocating for the incorporation of technologies like virtual reality (VR), augmented reality (AR) and makerspaces. Additionally, 29 respondents (50%) mentioned art galleries and museums as potential additions to enhance cultural diversity, highlighting the importance of broadening cultural horizons. Many also recognised the potential synergy between libraries and museums, with libraries focusing on book conservation and museums on preserving history. As one participant stated, "*Even within museums, places such as history museums offer individuals the opportunity to see, experience, and gain new information and meaningful insights.*" (P18, 37 years old, male, uses public library once a month)

Furthermore, 39 respondents (67.2%) expressed support for integrating educational functions within public libraries. They proposed merging spaces that facilitate experiential learning, such as those focused on "nature" and "plants", with libraries. This collaborative approach envisions a space where individuals can acquire knowledge from a library and directly engage with it through hands-on activities, fostering a synergistic learning environment. Additionally, some respondents suggested integrating public libraries with social welfare facilities that serve vulnerable groups, such as the elderly, people with disabilities, and children. This integration is seen as a way to provide greater educational opportunities, as public libraries, with their public functions, can collaborate with these facilities to better meet the information needs of these groups. One participant shared, *"I think it would be great to integrate with senior centres. Many seniors who enjoy learning might live far from a library, in rural areas, or have mobility issues. Integrating libraries with senior centres could address these challenges."* (P26, 27 years old, female, uses public library once every two weeks)

Respondents suggested that public libraries could be integrated with a variety of institutions across different sectors to provide comprehensive societal, cultural, and educational experiences, effectively meeting the diverse educational needs of users.

(c) Lifestyle collaboration

A variety of innovative ideas for integrating public libraries with other community facilities were proposed by respondents. Thirty-five (60.3%) participants expressed interest in merging libraries with sports centres, particularly as a means of revitalizing underserved areas. Combining a dynamic sports centre with a traditional library received significant support, with many emphasizing the benefits of incorporating physical activity into study routines. This integration was seen as a way to offer individuals opportunities for both mental and physical engagement, creating a more well-rounded experience. As one participant emphasised: *"If a dynamic space such as a sports centre is integrated with a library, individuals studying could take a break and participate in sports at the sports centre for a while. I believe this would be beneficial."* (P15, 20 years old, male, uses public library once every two weeks)

In addition, 26 (44.8%) respondents suggested the possibility of integrating beauty salons and bathhouses with public libraries, proposing an environment where people could read while receiving grooming services. They also noted how bathhouses attract a wide range of age groups, making library services more accessible. Some participants even proposed incorporating hospitals with libraries, suggesting that hospital spaces for wellness could offer a combination of mental and physical well-being alongside cultural content: *"In the case of hospitals, reading books during waiting times for appointments could make the time more productive, and providing hospitalised patients with the opportunity to enjoy reading during their stays could contribute to their well-being."* (P36, 21 years old, female, uses public library once every two weeks). These suggestions highlight the respondents' anticipation of incorporating various everyday life-related facilities as collaborative partners with public libraries.

What Strategies Can be Employed to Achieve the Convergence of Public Library Spaces, and What Roles do Various Stakeholders Play in This Process?

The results of this study suggest several key approaches for achieving the convergence of public library spaces, emphasizing the importance of maintaining the library's core identity, fostering government and community support, leveraging promotion and marketing strategies, and incorporating user feedback.

(a) Maintaining the essence of libraries while embracing convergence

Thirty-four (60.3%) respondents believed that public libraries could successfully integrate with other spaces while maintaining a certain level of separation to preserve their core functions. While convergence could allow for a broader range of activities, it should be carefully designed to support the library's mission. Programmes should remain flexible, encourage participation, and reinforce the library's role in providing knowledge. This approach would enable libraries to expand their offerings while safeguarding their essential purpose, enhancing the overall user experience. One participant emphasised the importance of preserving the library's essence as a quiet space for reading and study, ensuring that this fundamental purpose is not compromised: *"I'm concerned that we might deviate from the purpose and essence of the library. I view libraries primarily as spaces for reading quietly or studying, so I think we should move in a direction that doesn't stray from*

the core and purpose of libraries." (P50, 33 years old, female, uses public library once every two weeks)

Furthermore, 30 (51.7%) respondents emphasised the importance of maintaining the essence of a library while integrating it with other functions. They believed that while different functions could be introduced, spaces should remain separated to ensure that each function is organically connected to the library's core identity. More than 22 (25%) respondents expressed concerns that an excessive focus on convergence could compromise the library's essential purpose. One participant noted, *"When implementing convergence, it's essential to consider how activities can be integrated across institutions. Creating activities or plans that establish an organic connection between these two institutions is crucial and holds the utmost importance in my view"* (P6, 28 years old, female, rarely uses public library). This highlights the need for thoughtful integration that does not diminish the core role of libraries.

(b) Convergence through support from the government, local authorities, and other organizations

Fifty-six (96.6%) respondents emphasised the crucial role of national support in facilitating public library convergence. They suggested that collaboration with the government could streamline efforts, ensuring that convergence initiatives are better supported and more efficient. Additionally, many respondents proposed involving civic organisations and corporate partnerships to address financial challenges, further underscoring the need for national-level backing. One participant shared, *"I hope that the convergence of libraries occurs simultaneously in multiple regions, not merely in one city or area, because, in Korea, Seoul and the Gyeonggi Province are cultural centres, while other regions have relatively inadequate cultural facilities and infrastructure"* (P56, 23 years old, male, uses public library once every two weeks). This highlights the importance of expanding convergence efforts beyond specific areas to ensure equal access to cultural and educational resources. Moreover, respondents stressed the need for ongoing support and infrastructure improvements to facilitate collaborations with non-governmental institutions. As public libraries function within the public domain, local government support and collaboration are seen as essential for the success of convergence initiatives.

(c) Convergence through promotion, marketing, and popularity

Thirty-six (62.1%) respondents stressed the importance of promoting public libraries through convergence to enhance accessibility and comfort. Using platforms such as social media to communicate diverse programmes has proven effective. Convergence offers an opportunity to foster approachability and relaxation in libraries, boosting their popularity. Respondents emphasised that the focus should be on enhancing accessibility and creating inviting environments, emphasizing convenience and relaxation for all ages and genders. One participant noted: *"I believe the reason for convergence is to make libraries more accessible to people. Therefore, effective promotion is necessary. As people nowadays extensively use the internet, using platforms such as social networking services for promotion is considered beneficial."* (P17, 34 years old, female, uses public library once every two weeks)

Notably, 48 (82.8%) respondents emphasised the significance of the location of a converging library. They believed that placing libraries in areas with high foot traffic and large transient populations would increase their usage. To support this, effective marketing and publicity are crucial to promote the services of these accessible, converging libraries.

By ensuring easy access and strategic positioning, libraries can enhance their visibility and appeal to a broader public.

(d) User-driven convergence

A significant number of respondents (over 43%) emphasised the importance of public libraries evolving by consistently integrating user feedback and making proactive improvements. They highlighted the need for libraries to create spaces that reflect current trends and meet the changing demands of users, suggesting that aligning with these trends and offering experience-focused programs could enhance user satisfaction and encourage frequent visits. As one participant stated: *"I hope that public libraries will listen to the opinions of citizens to fulfill their purposes and that a culture develops where more people come to libraries to acquire and share information."* (P55, 25 years old, female, uses public library once a month)

This approach, they believed, would enhance user satisfaction and encourage frequent visits by aligning with trends and offering experience-focused programs. Another respondent further emphasised the need for user-centered convergence to maximize satisfaction, suggesting that engaging programmes could create a welcoming environment: *"By offering various user engagement programmes that provide fun and enjoyment and creating a comfortable place for leisure, I believe many people will visit."* (P24, 23 years old, male, uses public library once or twice a week). Thus, continually incorporating user feedback and aligning library spaces with current trends are key to achieving successful spatial convergence.

DISCUSSION

In the context of the evolving information age, understanding the motivations behind public libraries' shift toward space convergence is critical. This study highlights how adopting a social and cultural approach enables libraries to establish collaborative networks, bridging institutional gaps and fostering cooperation and support among stakeholders. By embracing this approach, libraries can offer users access to a more diverse range of resources and experiences, thereby enhancing their relevance and utility. Moreover, such partnerships help libraries define clear strategies and roles for each stakeholder, ensuring that convergence efforts are well-coordinated and impactful. As demonstrated in this study, these collaborative efforts empower libraries to adapt and grow continuously, fostering resilience and innovation within the library community.

Understanding Motivations Behind Convergence in Public Library Space

The motivations for public libraries to consider converging their spaces are rooted in the desire to optimize library usage, satisfy diverse user needs, and create synergistic effects. Participants in their 20s and 30s expressed a strong preference for transforming public library spaces through collaboration with other institutions and integrating diverse functionalities. This approach not only addresses user demands but also necessitates the renovation, rebuilding, or remodelling of existing library spaces to enhance their relevance in contemporary society.

Examples of such convergences can be observed across various countries (See Table 3). In South Korea, initiatives have integrated educational facilities with cultural organisations, fostering an environment where users can engage in both learning and leisure (e.g., Nonsan Open Library, https://lib.nonsan.go.kr/lib.do). For instance, the collaboration

between public libraries and educational institutions has facilitated workshops and seminars that cater to the community's educational aspirations. In Japan, there has been a focus on merging library spaces with nature, promoting wellness and tranquillity through green design (e.g., Minna no Mori Gifu Media Cosmos, https://g-mediacosmos.jp/cosmos/about/about_e.html), while Finland exemplifies a model where libraries have adapted to local lifestyles, integrating spaces that reflect community values and preferences (e.g., Helsinki Central Library Oodi, https://www.oodihelsinki.fi). These examples highlight the global trend of public libraries evolving to meet the diverse needs of their users through strategic collaborations.

Table 3: Global Examples of Public Library Convergence Initiatives

Countries	Institutions (location)	Note (Major theme)	Other facilities (spatial, institutional, etc.)
South Korea	Asian Culture Centre library park (Gwangju)	Community centre / Cultural hub	Gallery and local council services, archives and special collections, cafe, theatre, children's place, creative space
South Korea	Nonsan Open Library (Chungnam)	Culture & education / Community hub	Children's room, toddler room, nursing room, cafe, archive, machine room
South Korea	Hyundai Card Cooking Library (Seoul)	Cultural hub / Recreation	Cooking place, food lab, cafe, restaurant
South Korea	Korea Manhwa Museum (Gyeonggi)	Culture & education	Special exhibition hall, cartoon library, cartoon film screening room
United States	Seattle's Public Library (Seattle)	Welfare space	Auditorium, study room, day care centre, writer's room, music practice room
United States	The Pico Branch Library (Santa Monica)	Community hub	Farmers market, park
Australia	Eagle Vale Library (Campbelltown City)	Cultural hub / Recreation	Swimming pool, gym, café, meeting room and creche
Australia	Narooma Library (Eurobodalla Shire)	Community centre / Services	Community health services, meals on wheels and youth café
Finland	Helsinki Central Library Oodi (Helsinki)	Cultural hub / Recreation	Cafe, restaurant, cinema, information room, creative space
United Kingdom	Library of Birmingham (Birmingham)	Relaxation / Archives	Gallery and local council services, archives and special collections, relaxation and study areas, a cafeteria, meeting spaces, roof gardens and the latest technology
France	BPI: Bibliothèque publique d'information (Paris)	Cultural hub / Recreation	Gallery and local council services, cafe, theatre, music room
Japan	Minna no Mori Gifu Media Cosmos	Community centre / Cultural hub	Citizen Activity Exchange Centre, Exhibition Gallery, Multipurpose Hall
New Zealand	Te Ara Ātea (Rolleston)	Community centre / Cultural hub	Studio, café, workshop area and exhibition and performance spaces
Netherland	The LocHal (Tilburg)	Community centre / Cultural hub	Café, restaurant, concert hall, digital lab, future lab, food lab, game lab

The motivation for this spatial convergence is driven by the need to address the changing demands of communities. By creating multifunctional spaces that blend resources for knowledge acquisition, leisure activities, and social interactions, libraries can become dynamic hubs that support lifelong learning and community engagement (Lenstra, 2022; Robinson, 2016; State Library of New South Wales, 2023). This integration allows libraries to reduce barriers to access, making it easier for users to participate in educational, cultural, and health management activities within a single location (Jochumsen et al., 2012).

Furthermore, the potential for synergies through cross-institutional collaborations is a key factor. By partnering with schools, museums, or local organisations, public libraries can expand their service offerings and enrich the community's cultural fabric. This collaborative approach not only enhances the library's role as a provider of educational resources but also fosters a sense of belonging and community interaction among users. The Library-Community Convergence Framework (LCCF), as advocated by Mehra and Srinivasan (2007), emphasises this integration, positioning libraries as catalysts for community engagement and social change. Through collaboration with diverse institutions and the integration of various functionalities, public libraries can respond effectively to evolving community needs, ultimately reinforcing their significance as essential community hubs.

Facilitating Convergence through Effective Collaboration in Public Library Spaces
The convergence of public library spaces can be significantly enhanced through diverse collaborations that encompass leisure, education, and lifestyle domains. As public libraries continue to evolve, their ability to adapt and integrate diverse offerings will be crucial for maintaining their relevance and effectiveness in serving their communities. This collaborative approach not only enriches library services but also transforms them into vibrant community hubs.

Globally, public library space convergence demonstrates diverse and dynamic trends. In South Korea, libraries are notably integrating information technology, shopping, and entertainment, actively leveraging technology to enhance user experiences and improve information accessibility (Gang et al., 2018). By partnering with local educational institutions, recreational centres, and cultural organisations, public libraries can offer a wide array of programmes and shared resources that cater to the multifaceted interests of their users (Kim, 2013). In the United States, the emergence of eco-libraries reflects a growing commitment to sustainability and environmental awareness within library spaces (e.g., The Pico Branch Library, Santa Monica, California, https://www.santamonica.gov/places/libraries/pico-branch-library). Meanwhile, Japan is witnessing the rise of nature-friendly libraries that promote outdoor activities and emphasise harmony with the environment (e.g., Minna no Mori Gifu Media Cosmos).

Comparing these international contexts reveals both differences and similarities. In South Korea, government policies actively promote the convergence of public libraries, while Japan also demonstrates local government support for library integration (Shiwa et al., 2023). In contrast, the United States emphasises the traditional role of public libraries in information provision, often resulting in collaborations with academic libraries (Richards, 2017). Numerous examples exist where public library spaces merge with state university libraries, reflecting a unique approach to fulfilling community needs while maintaining the core functions of libraries (Yuen & Liew, 2022).

As collaboration in leisure, health, entertainment, and lifestyle becomes increasingly important, it is essential to consider how the paradigm and image of public libraries will evolve in these directions (Mathiasson & Jochumsen, 2020; Hodges, 2022). Million and Moulaison's (2014) study aligns closely with this perspective. The collaborations and integrations observed in libraries mirror the lifestyle and information-seeking behaviours of patrons in their 20s and 30s, underscoring the necessity for libraries to adapt their services to meet the diverse demands of contemporary users.

Employing Strategies and Defining Stakeholder Roles for Public Library Space Convergence

To achieve the convergence of public library spaces, several strategic approaches can be employed, emphasising collaborative planning, flexible space design, and diverse programming. Key stakeholders - including library staff, local and national governments, community organisations, businesses, and sponsors - play distinct roles in this process. Their involvement in strategic decision-making, funding, and programme development is essential for creating spaces that reflect and respond to community needs.

Globally, examples such as the BPI (Bibliothèque publique d'information) in France and the Library of Birmingham in the United Kingdom (https://www.birmingham.gov.uk/ libraryofbirmingham) highlight the importance of collaborative planning and stakeholder engagement to establish user-centred library environments. In this context, the evolution of public library convergence should be driven by the users themselves, with library professionals acting as facilitators and mediators between users and other stakeholders. This role is crucial in ensuring that the libraries effectively address the diverse interests of their communities. Tailoring convergence strategies to local needs and resources, along with ongoing assessment and improvement, ensures the continuous evolution of library spaces. Library administrators play a vital role in understanding user needs and developing convergence programmes that are responsive to those needs (Nightingale, 2020).

Promoting community engagement, raising awareness, and advocating for library programmes can help public libraries create dynamic spaces that cater to diverse interests and needs (Logan & Liew, 2023). Additionally, strategic siting and outreach to high-traffic areas can significantly increase a library's visibility and usage (Horsfall, 2020). Ultimately, a library's location plays a pivotal role in determining its success and patron engagement. Finally, encouraging user-centred initiatives through user-driven programme development, collaborative environments, and incorporating ongoing feedback is essential to advancing convergence. By encouraging participation, providing necessary resources, and empowering users, libraries can strengthen community engagement and expand their role within the community (Vårheim et al., 2019).

CONCLUSIONS

Public libraries in Korea are increasingly exploring the integration of diverse facilities within or near their buildings to address growing cultural, educational, and community needs. By partnering with various institutions, libraries can innovate by blending expertise and resources across multiple fields, creating unique value for users. To achieve these goals, establishing clear protocols around convergence objectives, partnership roles, and implementation methods is essential. This study examined university students' perspectives to examine core questions about the motivations behind convergence, ideal partnership structures, and effective methods for achieving it. The insights gathered provide a foundation for shaping libraries that resonate with digital-age users and outline a forward-looking paradigm for public libraries. These findings aim to guide library administrators and policymakers in defining a future identity for libraries that meets contemporary expectations and fosters lasting community impact.

This study has several limitations. First, it focuses solely on the perspectives of university students in their 20s and 30s from a single city in Korea, limiting the generalizability of the findings to this specific demographic. As global interest in library service convergence

grows, it is crucial to examine user perceptions across a broader range of age groups and geographical regions. Second, the study does not consider variations in participants' perspectives based on their frequency of library use. Future research should aim to compare the perceptions of frequent and infrequent library users to provide a more comprehensive understanding of their needs and expectations.

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CONFLICTS OF INTEREST

The authors have no relevant competing interests to declare pertaining to the content of this article.

AUTHOR CONTRIBUTION

Conceptualization: [all authors], Methodology: [all authors], Formal analysis and investigation: [all authors], Writing - original draft preparation: [all authors]; Writing - review and editing: [all authors]

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