



Bridging the Skills Gap in Public Museums: Evidence from Human Resource Development in Ho Chi Minh City

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ABSTRACT: This paper analyzes the multifaceted skills gap in public museums in Ho Chi Minh City, Vietnam. It focuses on the integration of digital technologies, the emergence of audience-centered practices, and evolving cultural policy objectives. Drawing on skills mismatch theory, competency-based human resource development (HRD), museum workforce studies, and public-sector management, the study develops a comprehensive skills gap framework that goes beyond a deficit-based approach. Using a qualitative case study design, the research analyzes policy documents, institutional reports, and relevant literature to identify five key areas of skills gaps: (1) the transition from specialized to multi-professional roles, (2) digital skills, (3) engagement and pedagogy, (4) curatorial and interpretive skills, and (5) institutional and HRD capacity. The findings show that skills gaps are not only individual but are often reinforced by institutional factors, including inflexible recruitment processes, limited financial and human resource autonomy, apprenticeship-based training models, and underdeveloped career pathways. The study proposes a competency-based framework that supports skills modeling, continuous assessment, targeted training, and cross-sector collaboration. It contributes to the literature on public museums in the Global South and advances the concept of institutionally embedded skills gaps. The paper also offers actionable insights for policy reform and workforce development in Vietnam and similar public-sector cultural systems.

KEYWORDS: Digital transformation; Human resource development (HRD); Public museums; Skills gap; Vietnam

1. INTRODUCTION

Public museums worldwide are increasingly undergoing significant transformations in terms of their social roles, organizational structures, and the professional skills required of their employees. Until recently, museums were generally viewed as collection-based institutions responsible for collecting, preserving, researching, and exhibiting objects of historical, artistic, scientific, or cultural value. However, over the past few decades, this traditional model has been widely reconsidered, accompanied by growing expectations that museums engage with the public, promote social inclusion, expand access for underrepresented groups, support participation in the arts, and foster community co-creation.

The International Council of Museums definition adopted in 2022 emphasizes accessibility and inclusion, diversity and sustainability, ethical and transparent communication, and community participation. Museums are therefore expected to go beyond preservation and actively interpret, communicate, and democratize access to heritage, transforming it into meaningful social and educational opportunities. This transformation has profound implications for the museum workforce. Museum professionals must not only maintain traditional competencies in curatorial work and collection preservation but also develop new skills suited to digital and socially engaged contexts.

An increasing body of research on museum workforce development indicates that contemporary practitioners must possess hybrid professional identities and transversal skills that extend beyond traditional departmental boundaries (Museums Association, 2016; Dragouni & McCarthy, 2021). At the same time, broader discussions of skills mismatch highlight that organizations often face difficulties when the pace of workplace change exceeds existing qualification frameworks, training systems, and job structures (McGuinness et al., 2018; Cedefop, 2015).

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This issue is particularly pronounced in public museums. Unlike private or independent cultural organizations, public museums operate within state-regulated systems of employment, budgeting, and accountability. While these systems can provide stability and public legitimacy, they may also create inflexible and complex arrangements in recruitment, promotion, and organizational restructuring. Public administration scholarship has long noted that public organizations are characterized by multiple goals, procedural constraints, oversight, and limited managerial autonomy (Rainey, 2014; Pollitt & Bouckaert, 2017).

Consequently, skills gaps in public museums should not be interpreted simply as individual deficiencies, but rather as outcomes shaped by institutional structures. This is particularly relevant in Ho Chi Minh City, one of Vietnam's most dynamic centers of economic, cultural, and educational development. The city hosts a diverse range of public museums, including institutions dedicated to history, fine arts, war memory, women's history, political figures, and urban heritage. These museums play important roles in preserving cultural identity, supporting education, and contributing to tourism and the creative economy.

Recent policy documents and cultural sector discussions in Ho Chi Minh City emphasize digital transformation, human resource development, and the strategic role of heritage institutions in the city's development toward 2030 and beyond. These developments place increasing pressure on museum staff, particularly in areas such as digital competence, curatorial interpretation, educational programming, communication, and adaptive management.

Despite growing scholarly attention to museum workforce development and cultural labor, skills gaps in public museums in the Global South—especially within transitional public-sector contexts—remain underexplored. Existing research on skills mismatch has largely focused on general labor markets and education-to-work transitions (Allen & van der Velden, 2001; OECD, 2019, 2021), while museum workforce studies have predominantly centered on Europe and North America. There is therefore a notable lack of research on rapidly urbanizing contexts in the Global South.

This article addresses this gap by examining the HRD-related skills gap in public museums in Ho Chi Minh City. Drawing on theories of skills mismatch, competency-based HRD, museum workforce studies, digital transformation, and public-sector human resource management, the study analyzes shifting skill requirements and identifies the structural factors underlying existing gaps. It argues that these gaps are shaped not only by changing professional expectations and emerging technologies, but also by institutional constraints within the public sector.

The article is guided by three research questions. First, what skill requirements are emerging in public museums under digital and audience-oriented transformation? Second, what types of skills gaps can be identified in public museums in Ho Chi Minh City? Third, how can strategic HRD help bridge these gaps within public-sector institutional constraints? By addressing these questions, the article contributes to museum management, cultural policy, and HRD scholarship by developing a context-sensitive framework for understanding and addressing institutionally embedded skills gaps.

2. LITERATURE REVIEW

2.1. Skills gap and skills mismatch

The concepts of *skills gap* and *skills mismatch* provide an important analytical foundation for understanding workforce challenges in contemporary public museums. A skills gap generally refers to the distance between the competencies that employees currently possess and the competencies required to perform emerging or changing work tasks effectively. In contrast, skills mismatch is a broader concept referring to the misalignment between workers' education, qualifications, skills, and the actual requirements of their jobs (McGuinness et al., 2018). This distinction is important because an employee may have a high level of formal education but still lack the practical, digital, communicative, or adaptive skills required by a changing workplace.

The literature commonly distinguishes between several forms of mismatch. *Vertical mismatch* occurs when workers are overqualified or underqualified for their positions, while *horizontal mismatch* refers to a situation in which workers are trained in one field but employed in another (Allen & van der Velden, 2001). In cultural institutions, horizontal mismatch may appear when museum employees are recruited from history, cultural studies, administration, tourism, or communication backgrounds but are later expected to perform specialized curatorial, educational, digital, or conservation roles. Beyond these traditional categories, recent discussions emphasize digital skills gaps and transversal skills gaps. The OECD (2019, 2021) argues that digital transformation has intensified the need for lifelong learning, problem-solving, adaptability, communication, and digital fluency. Similarly, Cedefop (2015) highlights that skills mismatch is not only an educational problem but also an organizational and policy problem, shaped by recruitment systems, workplace learning, and institutional adaptability.

Green (2013) further reminds us that "skill" should not be reduced to formal qualifications. It includes knowledge, practical capacities, autonomy, judgment, communication, and the ability to perform complex tasks in changing environments. This insight is particularly useful for museums, where professional competence involves both technical knowledge and interpretive, relational, and ethical capacities. Therefore, the skills gap in museums should be understood as a multidimensional mismatch between inherited professional training and the new demands of digital, audience-oriented, and socially engaged museum work.

2.2. Strategic HRD and competency-based development

Human resource development (HRD) offers a useful framework for addressing skills gaps because it shifts attention from isolated training activities to the systematic development of individual and organizational capabilities. Classical HRD scholarship defines HRD as a field concerned with learning, performance, and organizational improvement (Swanson & Holton, 2001). However, more recent work emphasizes *strategic HRD*, in which learning and development are aligned with long-term organizational goals, dynamic capabilities, and institutional change. Garavan et al. (2012) argue that talent development should be understood as an architecture of practices that identifies, develops, deploys, and retains human capabilities. Garavan et al. (2016) further connect strategic HRD with dynamic capabilities, suggesting that organizations need to continuously renew their human competencies in response to changing environments.

Competency-based development is central to this process. McClelland (1973) famously challenged conventional reliance on intelligence tests and credentials, arguing that competence should be assessed through actual performance. Boyatzis (1982, 2008) conceptualizes competencies as underlying characteristics that enable superior performance, including motives, traits, knowledge, skills, and self-concepts. Campion et al. (2011) provide practical guidance for competency modeling, emphasizing that well-designed competency frameworks can support recruitment, training, performance evaluation, succession planning, and organizational development. Armstrong and Taylor (2020) similarly view HRM and HRD as strategic systems that connect people management with organizational performance.

For public museums, this literature is highly relevant. If museums are expected to become more digital, participatory, educational, and socially engaged, HRD cannot remain limited to occasional professional workshops or administrative training. Instead, museums need competency-based HRD systems that identify emerging occupational requirements, assess current capacity, design targeted learning pathways, and evaluate whether training improves actual work performance. In this sense, HRD becomes a bridging mechanism between museum transformation and workforce readiness. It allows public museums to move from a reactive model of staff development to a strategic model of capability building.

2.3. Museum workforce transformation

Museum workforce transformation must be understood in relation to the changing definition and social role of museums. The 2022 ICOM definition describes museums as not-for-profit, permanent institutions in the service of society that research, collect, conserve, interpret, and exhibit tangible and intangible heritage, while also emphasizing accessibility, inclusiveness, diversity, sustainability, ethical practice, and community participation (ICOM, 2022). This definition marks a significant move beyond the traditional collection-centred model. Studies on the museum definition debate have shown that contemporary museums are increasingly expected to act as civic, educational, democratic, and socially responsive institutions (Brown & Mairesse, 2018; Robinson, 2021).

This transformation changes the meaning of museum professionalism. Museum staff are no longer only conservators, collection managers, researchers, or guides. They are also educators, communicators, digital mediators, audience developers, community facilitators, project managers, and interpreters of complex social issues. The Museums Association (2016) emphasizes that attitudes, behaviours, and transferable skills are now central to museum work. These include communication, collaboration, creativity, resilience, ethical awareness, and audience sensitivity. Dragouni and McCarthy (2021) further show that museums must be understood as workplaces whose effectiveness depends on supportive leadership, job resources, wellbeing, and organizational commitment.

After COVID-19, workforce questions have become even more urgent. Museums faced closures, budget reductions, emotional strain, digital acceleration, and changing public expectations. The Museums Association (2022, 2024) highlights workforce wellbeing as a central concern, while Ardizzone et al. (2025) connect human resources with museum resilience and economic performance during crisis conditions. Other scholars broaden this debate by examining emotional labour and social care in museum work. Munro (2014) shows that community engagement work often involves significant emotional labour, while Morse (2021) conceptualizes the museum as a space of social care. These studies suggest that the museum skills gap is not only technical. It also includes emotional, relational, ethical, and organizational dimensions that are often invisible in traditional job descriptions.

2.4. Digital skills in museums

Digital transformation has become one of the most important drivers of museum workforce change. However, digital transformation should not be understood merely as the adoption of technologies, software, databases, websites, or virtual exhibitions. It is fundamentally a human and organizational capability challenge. Parry (2007, 2010) argues that digital technologies reshape the way museums collect, classify, preserve, interpret, and communicate cultural knowledge. Giannini and Bowen (2019) similarly show that digital culture transforms the relationship between museums, collections, audiences, and knowledge production.

The broader digital skills literature helps specify what this transformation requires. Van Laar et al. (2017) identify twenty-first-century digital skills as a combination of technical, information, communication, collaboration, creativity, critical thinking, and problem-solving abilities. The DigComp framework developed by Carretero Gomez et al. (2017) provides a useful reference for understanding digital competence through areas such as information and data literacy, communication and collaboration, digital content creation, safety, and problem solving. These competencies are directly relevant to museum staff who must manage digital collections, create online content, communicate with audiences through digital platforms, and participate in digital interpretation. The World Bank (2016) and OECD (2020) both stress that digital transformation generates value only when technological investment is accompanied by human capability development. For museums, this means that digitization projects will remain superficial if staff lack the capacity to manage data, curate digital narratives, assess online audiences, and integrate digital tools into education and public engagement.

2.5. Public-sector constraints in museum HRD

Public museums differ from private cultural organizations because their human resource systems are embedded in public-sector institutions. Public organizations often operate with multiple goals, procedural accountability, political oversight, budgetary limits, and formalized employment rules (Rainey, 2014). Public management reform literature has long emphasized the tension between flexibility, efficiency, accountability, and bureaucratic control (Hood, 1991; Pollitt & Bouckaert, 2017). These tensions are especially visible in public museums, where professional innovation may be constrained by recruitment rules, salary scales, job classifications, civil service norms, and limited autonomy over human resources.

Christensen et al. (2007) argue that public organizations should be understood through institutional, cultural, and symbolic dimensions, not merely as technical instruments. This perspective is useful for analyzing museums because public museums carry cultural legitimacy and public missions, while also being shaped by administrative traditions. Perry and Wise (1990) add that public service motivation can be an important source of commitment among public employees. In museums, many staff may be motivated by heritage preservation, public education, and cultural service, but motivation alone cannot compensate for weak career pathways, limited training resources, or rigid personnel systems.

In Vietnam, this issue is particularly important because public museums operate within the legal and administrative framework of public service units. Regulations on recruitment, employment, public employee management, financial autonomy, and organizational restructuring directly affect how museums hire, train, reward, and retain staff. Therefore, the skills gap in Ho Chi Minh City's public museums should be analyzed not only as a professional training issue but also as a public-sector HRD challenge shaped by institutional constraints and policy design.

3. CONCEPTUAL FRAMEWORK

This study develops a conceptual framework to analyze the skills gap in public museums by integrating insights from skills mismatch theory, competency-based human resource development (HRD), museum workforce studies, and public-sector organizational analysis. Rather than treating the skills gap as a simple deficiency in individual capabilities, the framework conceptualizes it as a dynamic outcome of the interaction between changing professional demands and institutional conditions. It identifies four key domains of competencies, situates them within broader transformation pressures, and links them to HRD responses within public-sector constraints.

3.1. Key competency domains in contemporary public museums

Building on the literature on competencies (Boyatzis, 2008; Campion et al., 2011), museum studies, and digital transformation, the framework distinguishes four interrelated groups of skills required in contemporary public museums.

First, *core museum skills* refer to the traditional professional competencies that have historically defined museum work. These include collecting, documenting, conserving, researching, curating, exhibiting, and interpreting heritage objects. Such skills remain foundational, as they ensure the preservation, authenticity, and scholarly integrity of museum collections (Edson & Dean, 1994; Ambrose & Paine, 2018). However, while these competencies are necessary, they are no longer sufficient in the contemporary museum context.

Second, *audience-facing skills* capture the increasing importance of public engagement and social relevance in museum work. These include museum education, communication, exhibition design, storytelling, visitor experience design, and community engagement. As museums shift toward participatory and inclusive models, staff are expected to facilitate dialogue, co-create knowledge with communities, and design accessible and meaningful experiences for diverse audiences (Hooper-Greenhill, 2007; Falk & Dierking, 2013). These competencies are closely linked to the redefinition of museums as institutions serving society rather than merely preserving collections.

Third, *digital skills* reflect the impact of digital transformation on museum practices. These include digitization of collections, data management, digital curation, online communication, multimedia production, and the use of digital platforms to engage audiences.

As highlighted in the digital skills literature, these competencies extend beyond technical proficiency to include the ability to integrate digital tools into interpretation, communication, and audience interaction (van Laar et al., 2017; Carretero Gomez et al., 2017). In this sense, digital skills are transversal, cutting across both core museum functions and audience engagement activities. Fourth, *strategic and adaptive skills* refer to higher-order competencies that enable organizations and individuals to respond to change. These include project management, partnership development, innovation, organizational learning, strategic thinking, and the ability to operate under conditions of financial autonomy and institutional reform. Drawing on HRD and organizational learning theory (Senge, 1990; Garavan et al., 2016), these competencies are essential for navigating complex environments where museums must adapt to policy shifts, funding constraints, and evolving public expectations. Taken together, these four domains illustrate that the contemporary museum workforce requires a hybrid and multi-dimensional competency profile. The skills gap emerges when existing workforce capabilities do not align with this expanded set of requirements.

3.2. Analytical model of the skills gap in public museums

Based on these competency domains, the study proposes an analytical model that links institutional context, transformation pressures, workforce capacity, skills gaps, and HRD responses.

At the outer layer, *institutional context* shapes the conditions under which public museums operate. This includes public-sector regulations, employment systems, financial autonomy, recruitment rules, and administrative procedures. Public management literature suggests that these institutional arrangements influence organizational flexibility, innovation capacity, and human resource practices (Rainey, 2014; Pollitt & Bouckaert, 2017).

Within this context, museums are subject to *transformation pressures*. These include digital transformation, the shift toward audience-centred practices, the growth of the cultural and creative economy, and increasing expectations for public engagement and social impact. These pressures redefine what museum work entails and, consequently, what skills are required.

The interaction between institutional context and transformation pressures shapes *current workforce capacity*. This includes the qualifications, experience, training background, job placement, and career trajectories of museum staff. In many public systems, workforce capacity reflects historical training models and administrative structures that may not fully align with new demands.

The misalignment between required competencies and existing capabilities constitutes the *skills gap*. This gap can manifest across all four competency domains: insufficient digital skills, limited audience engagement capacity, weak strategic capabilities, or an overconcentration on traditional core functions.

To address this gap, the model highlights the role of *strategic HRD responses*. These include developing competency frameworks, conducting systematic skills assessments, designing targeted training programs, fostering organizational learning, creating career pathways, and introducing more flexible recruitment and collaboration mechanisms. HRD thus functions as a mediating mechanism that translates transformation pressures into workforce development strategies within institutional constraints.

3.3. Theoretical contribution: Institutionally embedded skills gap

The central theoretical contribution of this framework is the concept of the *institutionally embedded skills gap*. This concept challenges the common assumption that skills gaps are primarily the result of individual deficiencies or inadequate training. Instead, it emphasizes that skills gaps in public museums are produced through the interaction between evolving professional requirements and the structural characteristics of public-sector systems.

In this view, the skills gap is not simply a problem of “unskilled workers” but a systemic mismatch between rapidly changing occupational demands and relatively stable institutional arrangements governing recruitment, training, career development, and organizational design. Public museums may recognize the need for digital expertise, audience engagement, or innovative programming, but their ability to respond is shaped by regulations, resource constraints, and administrative traditions.

By framing the skills gap as institutionally embedded, the study contributes to both HRD and museum studies literature. It extends skills mismatch theory into the domain of cultural institutions and highlights the importance of institutional context in shaping workforce transformation. At the same time, it provides a conceptual foundation for analyzing how strategic HRD can act as a bridge between transformation pressures and institutional realities in public museums.

4. RESEARCH CONTEXT AND METHODOLOGY

4.1. Research context: Public museums in Ho Chi Minh City

Ho Chi Minh City represents one of the most dynamic cultural, economic, and educational centres in Vietnam and, more broadly, in Southeast Asia. As the country’s largest metropolitan area, it plays a central role in shaping cultural consumption, heritage interpretation, tourism development, and creative industries. Within this broader ecosystem, public museums constitute an important network of cultural institutions responsible not only for preserving historical and cultural assets but also for communicating them to diverse audiences, including local communities, students, tourists, and international visitors.

The system of public museums in Ho Chi Minh City is characterized by considerable diversity in both thematic focus and institutional missions. It includes museums dedicated to national and regional history, fine arts, war memory, women's history, political figures, urban heritage, and specialized collections. These institutions vary in size, resources, and professional capacity, but they share a common mandate as public service units tasked with cultural preservation, education, and social engagement. In recent years, their roles have expanded significantly in response to broader transformations in the cultural sector.

Public museums in the city are currently facing multiple and overlapping pressures for change. First, digital transformation has become a key policy priority, requiring museums to digitize collections, develop online platforms, and integrate digital technologies into exhibitions and educational activities. Second, financial and organizational reforms have introduced increasing levels of autonomy, pushing museums to diversify revenue sources, improve efficiency, and strengthen managerial capacity. Third, there is growing emphasis on audience development, public engagement, and experiential learning, reflecting both global trends and local expectations. Fourth, the expansion of cultural tourism and the strategic promotion of the cultural and creative industries have further increased the demand for innovative, accessible, and attractive museum services.

Local policy documents and institutional reports reinforce these trends. Recent directives from Ho Chi Minh City emphasize the need to improve the quality of human resources in museums and libraries, accelerate digital transformation in cultural institutions, and position heritage as a strategic component of the city's long-term development agenda toward 2030 and a vision to 2045. These policy orientations place significant pressure on museum workforces, requiring them to adapt to new professional standards and institutional expectations. Consequently, the case of public museums in Ho Chi Minh City provides a relevant and timely context for examining how skills gaps emerge and how they may be addressed.

4.2. Research design

This study adopts a qualitative case study approach to explore the skills gap in public museums in Ho Chi Minh City. A qualitative design is appropriate given the exploratory nature of the research questions and the need to capture complex interactions between institutional structures, professional practices, and evolving competency requirements. Rather than seeking statistical generalization, the study aims to develop an in-depth, context-sensitive understanding of how skills gaps are produced and experienced within a specific public-sector setting.

The research draws on multiple sources of qualitative data. First, policy documents and legal frameworks related to public-sector management, cultural development, and museum governance are analyzed to understand the institutional environment shaping human resource practices. These include regulations on recruitment, employment, financial autonomy, and organizational restructuring, as well as strategic plans for cultural and heritage development. Second, museum reports, professional publications, and sectoral analyses are examined to identify current practices, challenges, and priorities within the museum system. Third, relevant academic literature on museum management, HRD, skills mismatch, and digital transformation is used to situate the case within broader theoretical debates.

Where available, supplementary qualitative data such as semi-structured interviews with museum managers and staff, as well as observational insights from fieldwork or professional engagement, can be incorporated to enrich the analysis. However, even in the absence of extensive primary data, the triangulation of policy documents, institutional reports, and scholarly literature provides a robust basis for identifying patterns of skills gaps and institutional constraints.

4.3. Data analysis

The analysis is conducted using a combination of thematic analysis, competency mapping, and gap analysis. Thematic analysis is employed to identify recurring patterns, themes, and issues across multiple data sources, including policy documents, institutional reports, and relevant literature. This approach enables a systematic interpretation of how skill requirements, workforce capacities, and institutional conditions are articulated and operationalized within public museums.

Building on this, competency mapping is used to organize the findings according to the four domains identified in the conceptual framework: core museum skills, audience-facing skills, digital skills, and strategic/adaptive skills. By aligning observed practices and institutional expectations with these domains, the analysis identifies areas where competencies are relatively well developed and areas where significant deficiencies persist.

Gap analysis is then applied to examine the mismatch between required competencies and existing workforce capacities. Specifically, the study compares the skill demands generated by transformation pressures—such as digital transformation, audience-centred practices, and organizational reform—with the current qualifications, training backgrounds, and professional practices of museum staff. This process allows for the identification of both the types and the underlying sources of skills gaps.

To further structure the analysis, a coding framework is developed based on six main categories: (1) traditional professional skills, (2) digital skills, (3) public engagement skills, (4) management and adaptive skills, (5) institutional barriers, and (6) HRD solutions. This framework enables a comprehensive examination of the skills gap as a multidimensional phenomenon that connects individual competencies with organizational practices and institutional constraints.

Figure 1 visualizes this analytical framework, illustrating how transformation pressures generate new competency requirements, how these requirements interact with existing workforce capacity, and how resulting skills gaps are shaped by institutional conditions and addressed through strategic HRD responses. The figure thus provides an integrated overview of the study’s analytical logic and highlights the concept of an institutionally embedded skills gap.

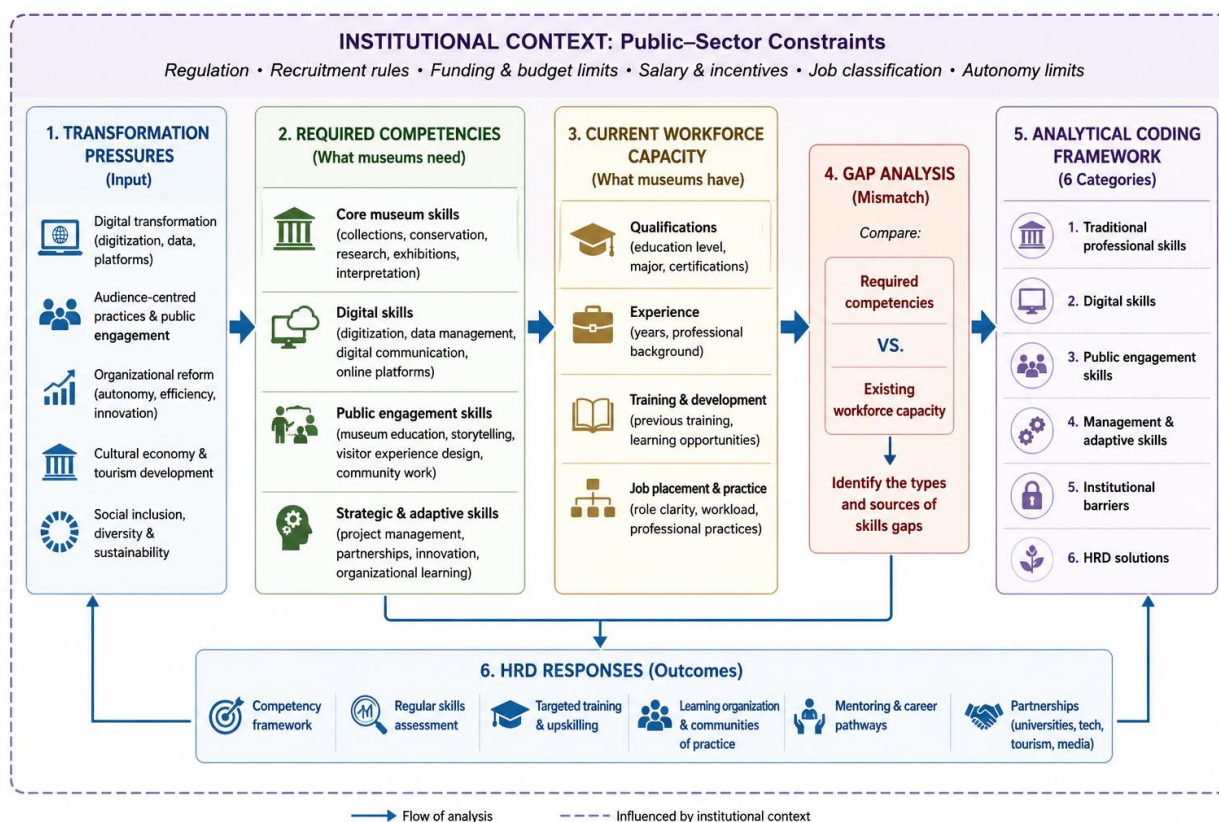


Figure 1: Analytical framework for examining institutionally embedded skills gaps in public museums

5. ANALYSIS: EMERGING SKILLS GAPS IN HO CHI MINH CITY’S PUBLIC MUSEUMS

The analysis identifies five interrelated skills gaps in public museums in Ho Chi Minh City. These gaps do not indicate a simple absence of professional capacity. Rather, they reflect a mismatch between inherited museum workforce structures and the expanding roles of contemporary public museums.

Table 1. Emerging skills gaps in Ho Chi Minh City’s public museums

Gap	Traditional emphasis	Emerging requirement	Main mismatch
Multi-functional roles	Research, preservation, display	Cross-functional museum work	Narrow job preparation vs expanded roles
Digital competence	Basic IT use	Data, digital content, online engagement	Technology access vs digital capability
Audience engagement	Guided tours, information delivery	Education, facilitation, co-creation	One-way communication vs participatory learning
Curatorial interpretation	Object selection and display	Narrative, discourse, experience design	Object-centred display vs interpretive curation
Institutional HRD capacity	Administrative personnel management	Strategic HRD and competency pathways	Public-sector rigidity vs flexible capability development

Source: Author’s synthesis based on literature and analysis.

This table summarizes the key areas of skills mismatch in public museums in Ho Chi Minh City, highlighting the gap between traditional professional orientations and emerging competency requirements.

5.1. Gap 1: From traditional museum work to multi-functional roles

The first gap concerns the transition from traditional museum work to multi-functional professional roles. Public museum staff in Ho Chi Minh City have historically been trained and organized around core museum tasks such as collecting, documenting, conserving, researching, displaying, and guiding visitors. These competencies remain essential because they sustain the professional legitimacy of museums as heritage institutions. However, the contemporary museum is no longer defined solely by the care and display of collections. The 2022 ICOM definition places stronger emphasis on interpretation, accessibility, inclusiveness, diversity, sustainability, ethical communication, and community participation (ICOM, 2022). This expanded mission requires museum professionals to operate across multiple domains.

In practice, a museum officer may no longer be responsible only for researching objects or preparing exhibition content. The same staff member may also contribute to public interpretation, educational programming, communication materials, digital content, guided experiences, and collaborative work with schools, communities, or tourism actors. This creates a significant competency shift. Traditional training in history, cultural studies, museology, conservation, or archival work may provide a strong foundation, but it does not automatically prepare staff for communication strategy, public engagement, digital storytelling, project management, or audience research.

From the perspective of competency theory, this is a classic case of expanding job requirements without a corresponding redesign of competency frameworks. McClelland's critique of credential-based assessment and Boyatzis's competency model suggest that performance depends not only on formal qualifications but also on demonstrated capacities in real work situations. In Ho Chi Minh City's public museums, the skills gap therefore lies in the movement from specialized, task-based professionalism to hybrid, cross-functional museum work. This is also a form of horizontal and transversal skills mismatch: staff may be formally qualified for traditional museum functions but insufficiently prepared for the broader social, educational, communicative, and digital roles now expected of them.

5.2. Gap 2: Digital competence gap

The second gap concerns digital competence. Digital transformation has become a major policy and organizational priority for cultural institutions in Ho Chi Minh City. Local documents emphasize the need to promote digital transformation in museums and improve the quality of museum and library human resources. Yet the key challenge is not simply whether museums possess computers, websites, digitization equipment, or social media accounts. The deeper issue is whether museum staff have the competencies to use digital tools strategically in collection management, interpretation, education, communication, and audience engagement.

The digital skills literature is useful here. Van Laar et al. (2017) show that twenty-first-century digital skills combine technical, informational, communicative, collaborative, creative, and problem-solving abilities. Similarly, the DigComp framework includes information and data literacy, communication and collaboration, digital content creation, safety, and problem-solving (Carretero Gomez et al., 2017). Applied to museums, this means that digital competence involves much more than basic IT literacy. It includes the capacity to manage digital collection data, produce online interpretive content, design digital exhibitions, communicate with audiences across platforms, evaluate online engagement, and integrate digital tools into public learning.

This gap is visible in many public cultural institutions where digitization is often treated as a technical project rather than a human capability project. Parry's work on digital heritage and Giannini and Bowen's work on museums and digital culture suggest that digital transformation reshapes the very logic of museum knowledge, documentation, interpretation, and communication. Therefore, if staff are trained only to scan objects, upload images, or operate software, digital transformation remains superficial. The more important capability is digital curatorship: the ability to transform collections into meaningful digital narratives and accessible public knowledge.

Table 2. Digital competence gap in public museums

Digital task	Basic level	Advanced competency needed
Digitization	Scanning, photographing, storing files	Metadata, database logic, digital preservation
Online communication	Posting announcements	Audience analytics, platform strategy, digital storytelling
Digital exhibitions	Uploading images/text	Interactive interpretation, user experience design
Collection data	Simple inventory	Data standards, interoperability, long-term access
Public engagement	Online publicity	Two-way interaction, feedback, digital community building

Source: Author's synthesis based on digital skills frameworks and analysis.

This table illustrates the contrast between basic digital practices and the advanced competencies required for effective digital transformation in museums.

Thus, the digital competence gap in public museums is not primarily a lack of equipment. It is a gap between technological adoption and professional digital capability.

5.3. Gap 3: Audience engagement and museum education skills

The third gap relates to audience engagement and museum education. Contemporary museums are expected to serve increasingly diverse audiences, including school students, local residents, tourists, researchers, families, online visitors, and communities associated with particular forms of heritage. This requires a shift from information delivery to educational facilitation. Hooper-Greenhill, Hein, and Falk and Dierking all emphasize that museum learning is not a one-way transmission of facts but a situated, interpretive, and experiential process shaped by visitors' prior knowledge, social context, and physical experience.

In this context, museum staff need skills in educational design, storytelling, facilitation, communication, accessibility, inclusion, visitor research, and program evaluation. The GEM Core Competencies for museum educators also highlight the need to understand learners, design meaningful programs, support inclusive access, and evaluate educational impact. However, many museum training systems, including those in Vietnam, have traditionally emphasized collection-related knowledge and technical museum operations rather than audience research, pedagogy, and participatory learning.

This creates a clear mismatch. Public museums may be expected to attract students, engage young audiences, contribute to lifelong learning, and support cultural tourism, but their workforce may not have been systematically trained in learning design or public engagement. Guided tours may still rely heavily on scripted explanations, chronological narration, or object-based information, while contemporary audiences increasingly expect interactive, dialogic, and experience-based forms of engagement.

The gap is especially important in Ho Chi Minh City because the city's museums are embedded in a dense ecosystem of schools, universities, tourism, cultural events, and urban publics. A museum educator or public program officer must therefore act not only as a presenter of knowledge but also as a designer of learning experiences and a mediator between heritage and contemporary social life. Without these skills, museums risk remaining physically open but socially under-engaged.

5.4. Gap 4: Curatorial and interpretive capacity

The fourth gap concerns curatorial and interpretive capacity. In a traditional sense, curatorial work may be understood as selecting objects, organizing displays, and ensuring scholarly accuracy. In contemporary museum practice, however, curation is also an interpretive, narrative, ethical, and experiential activity. Curators are expected to construct meanings, develop exhibition narratives, negotiate multiple perspectives, connect collections with contemporary issues, and create experiences that are intellectually and emotionally engaging.

This distinction is crucial for public museums in Ho Chi Minh City. Recent local professional discussions have explicitly raised the importance of curatorial work, moving from contemporary practice toward creative futures in museum development. This suggests a growing recognition that the quality of museum exhibitions depends not only on the number or value of objects displayed, but also on interpretive strategy, narrative coherence, visitor experience, and social relevance.

The curatorial skills gap emerges when exhibition work remains object-centred and information-heavy, while contemporary museum audiences expect interpretation, context, dialogue, and affective connection. Black's work on transforming museums, Simon's participatory museum model, and Janes's reflections on museums in a troubled world all point to the need for museums to become more responsive, dialogic, and socially meaningful. In this context, curatorial capacity includes not only disciplinary expertise but also narrative design, ethical interpretation, public communication, collaboration with communities, and sensitivity to contested histories.

For museums dealing with war memory, urban history, women's history, revolutionary heritage, or local identity, interpretive capacity is especially important. These subjects require more than factual presentation. They require curatorial judgment, emotional intelligence, public sensitivity, and the ability to connect historical materials with contemporary civic reflection. The skills gap, therefore, is not merely technical but interpretive.

5.5. Gap 5: Institutional and HRD capacity gap

The fifth and most fundamental gap is institutional and HRD capacity. The preceding gaps—multi-functional roles, digital competence, audience engagement, and curatorial interpretation—cannot be explained only by individual limitations. They are also shaped by public-sector employment systems, organizational structures, funding mechanisms, and professional development pathways.

Public museums in Vietnam operate within the framework of public service units. Recruitment, job classification, remuneration, organizational structure, and financial autonomy are shaped by state regulations, including rules on public employees, public service units, and financial autonomy. These frameworks provide legal order and accountability, but they may also limit the flexibility needed to respond quickly to new competency demands. For example, museums may need digital curators, audience researchers, museum educators, content designers, or data specialists, but existing job classifications and recruitment mechanisms

may not easily accommodate these roles. Similarly, salary structures and promotion pathways may make it difficult to attract or retain professionals with advanced digital, communication, or design skills.

From a public management perspective, this reflects the classic tension between bureaucratic stability and organizational adaptability. Rainey emphasizes that public organizations face multiple goals and procedural constraints. Hood and Pollitt and Bouckaert show that public management reforms often seek efficiency and flexibility, but implementation is shaped by institutional traditions. Applied to museums, this means that the skills gap is not only a training gap; it is also a governance gap.

Strategic HRD literature provides a way forward. Garavan et al. argue that HRD should build dynamic capabilities, while Campion et al. show that competency modeling can support systematic recruitment, training, evaluation, and career development. In Ho Chi Minh City’s public museums, HRD capacity remains crucial because workforce development cannot depend only on occasional training workshops. It requires competency frameworks, needs assessment, targeted training, mentoring, digital upskilling, career pathways, and more flexible collaboration with universities, technology partners, tourism actors, and creative professionals.

Table 3. Institutional sources of the skills gap and possible HRD responses

Institutional constraint	Effect on skills gap	Possible HRD response
Public employee recruitment rules	Difficulty hiring new specialized roles	Competency-based job descriptions
Fixed job classifications	New museum roles not clearly recognized	Update position frameworks
Salary and reward limits	Difficulty attracting digital/creative talent	Project-based contracts and incentives
Limited training budgets	Training remains occasional and fragmented	Dedicated museum HRD fund
Financial autonomy pressure	More demand for revenue and audiences	Training in project, partnership, and service design
Weak career pathways	Low motivation for skill upgrading	Professional development ladders
Administrative evaluation systems	Skills not linked to performance	Competency-based performance review

Source: Author’s synthesis based on public-sector theory and analysis.

This table demonstrates how institutional constraints contribute to the persistence of skills gaps and identifies corresponding HRD responses.

This leads to the central analytical claim of the article: the skills gap in Ho Chi Minh City’s public museums is an institutionally embedded skills gap. It is produced by the interaction between rapidly changing museum roles and relatively rigid public-sector HR systems. Addressing it therefore requires more than individual training. It requires a strategic HRD approach that links competency development with institutional reform, workforce planning, and museum transformation.

6. DISCUSSION

6.1. Reframing the museum skills gap

The findings suggest that the skills gap in public museums should not be interpreted as evidence that museum staff are simply “weak” or professionally inadequate. Such an interpretation would individualize a problem that is, in fact, structural and institutional. The skills gap identified in Ho Chi Minh City’s public museums reflects a broader misalignment between an older model of museum training, an inherited occupational structure, public-sector personnel systems, and the emerging requirements of contemporary museum work.

Traditional museum training has tended to emphasize object-based knowledge, collection management, conservation, research, exhibition, and guided interpretation. These remain indispensable competencies, but they do not fully correspond to the new demands placed on public museums. Contemporary museum work increasingly requires digital literacy, public engagement, education design, curatorial interpretation, emotional intelligence, audience research, communication, and project-based collaboration. This creates a mismatch between professional preparation and actual work requirements.

At the same time, the occupational structure of many public museums remains shaped by older job categories and administrative divisions. Roles such as museum educator, digital curator, audience researcher, community engagement officer, data manager, and experience designer are often underdeveloped or informally absorbed into existing positions. Therefore, the skills gap is not merely a gap in training content; it is a gap between changing museum missions and the institutional architecture of public museum employment.

The Vietnamese case contributes to international museum workforce debates by showing how skills gaps are intensified in Global South and transitional public-sector contexts. While museum workforce transformation has been widely discussed in Europe and North America, the Ho Chi Minh City case highlights the importance of institutional constraints, public employment regulations, and uneven capacity development in shaping how museums respond to change.

6.2. Strategic HRD as a bridging mechanism

Strategic HRD can function as a bridging mechanism between museum transformation pressures and workforce capability. Rather than treating staff development as occasional training, short-term workshops, or compliance-based certification, public museums need a more systematic approach to competency development. This requires connecting institutional strategy, workforce planning, professional standards, and learning pathways.

The first step is to develop a competency framework for public museum staff. Such a framework should include four domains: core museum skills, audience-facing skills, digital skills, and strategic/adaptive skills. These domains can help museums move beyond vague calls for “improving human resources” toward a more precise understanding of what skills are required for specific roles.

Second, museums should conduct periodic skills gap assessments. These assessments can compare existing staff capabilities with emerging requirements in digital transformation, education, communication, curatorial work, and management. Third, training should be organized by competency clusters rather than by administrative categories alone. For example, staff development programs may focus on digital collections, public learning, community facilitation, exhibition storytelling, visitor research, or project management.

Fourth, museums should build communities of practice. These communities can support peer learning, cross-departmental collaboration, and knowledge sharing among staff who face similar professional challenges. Fifth, mentoring should be strengthened between experienced staff and younger employees. Senior staff often hold valuable tacit knowledge about collections, institutional memory, and professional ethics, while younger staff may bring digital, communication, and audience-oriented skills. Structured mentoring can help connect these strengths.

Sixth, digital skills and public education should become central components of museum HRD. Finally, museums should connect more actively with universities, technology firms, tourism actors, communication professionals, and cultural enterprises. This would allow museums to access expertise that may not be immediately available within their existing workforce.

Table 4. Strategic HRD responses to the museum skills gap

Skills gap	HRD response	Expected outcome
Traditional role concentration	Competency framework	Clearer professional standards
Digital competence gap	Digital upskilling programs	Better digital collections and online engagement
Audience engagement gap	Training in education and facilitation	Stronger public learning and visitor experience
Curatorial interpretation gap	Exhibition storytelling and curatorial mentoring	More meaningful exhibitions
Institutional rigidity	Flexible partnerships and project-based expertise	Greater adaptive capacity
Weak career pathways	Professional development ladders	Higher motivation and retention

Source: Author’s synthesis based on analysis.

This table synthesizes the main HRD strategies for addressing the identified skills gaps and links them to expected organizational outcomes.

6.3. Policy implications for Vietnam and similar contexts

The findings have several policy implications for Vietnam and comparable public-sector cultural systems. First, job positions in public museums need to be updated. Current occupational structures should better recognize new professional roles such as digital curator, museum educator, audience researcher, community engagement officer, content designer, collection data manager, and public program coordinator. Without formal recognition of these roles, museums will continue to rely on informal multitasking, which may increase workload without building professional depth.

Second, public museums should be allowed to recruit or contract specialized experts for project-based work. Digital exhibitions, collection databases, education programs, communication campaigns, and audience research projects often require expertise that

may not exist within the permanent staff structure. Flexible contracting mechanisms would allow museums to supplement internal capacity while gradually developing long-term skills.

Third, a dedicated HRD fund for public museums should be considered. Training budgets are often fragmented and insufficient, while new museum competencies require continuous investment. A museum HRD fund could support digital skills, curatorial training, education programs, leadership development, and international professional exchange.

Fourth, financial autonomy should be linked to human resource autonomy. If museums are expected to generate revenue, expand audiences, and operate more entrepreneurially, they also need greater flexibility in recruiting, rewarding, and developing staff. Autonomy without HR flexibility risks creating pressure without capacity.

Fifth, universities and cultural training institutions should incorporate museum digital skills, public engagement, visitor studies, curatorial interpretation, and cultural project management into their curricula. This would reduce the gap between academic preparation and museum workplace requirements.

Finally, Vietnam should consider developing national occupational standards for museum professionals. Such standards could define competency levels for different roles and provide a basis for recruitment, training, evaluation, and career development.

Table 5. Policy implications for public museum workforce development

Policy area	Recommended action
Job structure	Update museum position frameworks
Recruitment	Allow project-based expert hiring
Training finance	Establish a public museum HRD fund
Autonomy	Link financial autonomy with HR autonomy
Higher education	Add digital, public engagement, and curatorial skills
Professional standards	Develop national museum competency standards

Source: Author's synthesis based on analysis and policy discussion.

This table summarizes the key policy implications and highlights priority areas for reform in public museum workforce development.

Overall, bridging the museum skills gap requires both organizational HRD and policy reform. Training individual staff is necessary, but insufficient. Public museums need an enabling institutional environment that allows new competencies to be recognized, developed, rewarded, and sustained.

7. CONCLUSION

This article has examined the skills gap in public museums in Ho Chi Minh City and demonstrated that it is a multidimensional and systemic issue rather than a simple shortage of individual competencies. The analysis shows that public museum workforces are currently facing multiple and overlapping gaps, particularly in digital skills, audience engagement and museum education, curatorial and interpretive capacity, communication, and strategic/adaptive management. These gaps reflect the growing complexity of contemporary museum roles as institutions move toward more audience-centred, digital, and socially engaged models.

Importantly, the findings suggest that these skills gaps cannot be explained solely by individual limitations or insufficient training. Instead, they are shaped by the interaction between changing professional requirements and institutional constraints within the public sector. Recruitment systems, job classifications, remuneration structures, limited training resources, and administrative procedures all influence how museum workforces are formed, developed, and utilized. In this sense, the skills gap in public museums in Ho Chi Minh City can be understood as an *institutionally embedded skills gap*, emerging from the misalignment between transformation pressures and public-sector human resource systems.

The article makes three main contributions. First, it extends the literature on skills gap and skills mismatch into the domain of public museums in a Global South context, where institutional conditions differ significantly from those in more frequently studied Western settings. Second, it introduces the concept of the institutionally embedded skills gap as a way to link individual competencies with organizational and institutional structures. Third, it proposes a strategic HRD framework that highlights competency development, organizational learning, and institutional adaptation as key mechanisms for bridging the gap.

At the same time, the study has limitations. As an exploratory case study based primarily on document analysis and conceptual synthesis, it does not provide large-scale quantitative or comparative empirical evidence. Future research should therefore incorporate survey-based assessments of museum workforce competencies and conduct in-depth interviews with museum

professionals to validate and refine the findings. Comparative studies across cities in Southeast Asia would also be valuable in identifying shared patterns and context-specific variations.

Overall, addressing the skills gap in public museums requires both organizational and policy-level interventions. Strengthening human resource development is essential, but it must be accompanied by institutional reforms that enable museums to adapt to changing cultural, technological, and social demands.

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