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Digital Competency Development and Employee Training Innovation in Leading Chinese Property Service Enterprises under Business Model Reconstruction

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Abstract: Leading Chinese property service firms have spent the past half-decade remaking themselves from labor-intensive contractors into digitally mediated service platforms, yet research on this transition has concentrated on technology adoption and financial outcomes while saying little about the workforce that must run the new model. This paper asks how digital competency development and employee training are being reorganized as these business models are rebuilt, and why well-resourced firms so often stall. Drawing on the dynamic-capabilities perspective and recent evidence from property management, real-estate, and human-resource-development research, we develop a conceptual framework linking three shifts: from job-specific skilling to broad digital competency portfolios, from classroom delivery to blended and immersive learning embedded in daily work, and from training-as-compliance to training-as-reconfiguration. The framework treats competency development as the reconfiguring limb of dynamic capability, and identifies the binding limitation not as technology or budget but as the gap between the competencies the reconstructed model demands and those the incumbent workforce holds, widened by cultural reluctance among frontline staff. We argue this reframing carries concrete implications for programme design, and, more broadly, brings the human mechanics of reconfiguration into a literature that has largely left them abstract. By integrating insights from organizational learning and strategic human resource management, this study offers actionable guidance for property service enterprises seeking to align workforce capabilities with evolving digital strategies, ultimately contributing to a more holistic understanding of business model transformation in the service sector.

Keywords: digital competency; training innovation; property service; business model; dynamic capabilities; workforce agility

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1. Introduction

For a long time, property management in China operated under a seemingly straightforward operational logic: deploy sufficient personnel, maintain common areas to high standards, ensure timely fee collection, and expand service scope through increased managed area. Growth was historically driven by workforce expansion rather than innovation. This approach is now undergoing fundamental transformation. Leading enterprises—including Vanke Service, Country Garden Services, and China Overseas Property—have devoted the past five to six years to reconfiguring their operations around digital platforms, intelligent devices, and data-informed decision-making. This shift reflects not merely incremental technological adoption but a comprehensive evolution of organizational identity. The transition from a traditional service provider to an integrated platform orchestrating community life has been widely observed in recent industry analyses. However, the implications for human capability development have received comparatively limited scholarly attention [1, 2].

The human dimension introduces significant complexity. A platform-based operating model requires sustained human engagement: staff must interpret real-time dashboards, diagnose issues with interconnected sensing systems, provide responsive support via digital channels, and translate operational data into actionable insights. These competencies differ markedly from those traditionally cultivated within the sector. Consequently, the business model transformation places substantially greater demands on talent development functions. Meanwhile, existing training frameworks—designed for procedural instruction and in-person briefings—are frequently the slowest component to adapt to these new requirements [3].

This paper examines this alignment gap as its central focus. It addresses two interrelated questions: First, how are digital capability development and employee training being restructured within leading Chinese property service enterprises amid ongoing business model transformation? Second, why do many such initiatives yield suboptimal outcomes, and what systemic enablers would support more effective implementation? The contribution lies not in cataloging digital tools, but in integrating three domains typically treated in isolation—business model evolution, workforce capability building, and training methodology innovation—demonstrating that, in this context, they constitute a single, interdependent challenge.

Why concentrate on industry leaders rather than the broader sector? Because they represent the most advanced stage of operational transformation and serve as benchmarks for peer organizations. When firms such as Vanke Service or Country Garden Services deploy smart community platforms, mid-tier enterprises typically adopt similar models within one to two years, often before fully addressing associated capability gaps [1, 4]. Studying leaders thus offers insight into the sector's imminent trajectory. Moreover, it sharpens the analytical focus: these organizations possess substantial resources, dedicated training investments, and ready access to advanced technologies, yet still encounter persistent challenges in workforce adaptation. Their experience suggests that resource availability and technological readiness alone are insufficient—success depends on deeper organizational and pedagogical factors.

2. Conceptual Background

2.1. Business Model Reconstruction as the Driver

Digital transformation is understood as a fundamental shift in how firms deploy digital technologies to develop new business models that generate and capture greater value than previous configurations. In property services, this shift has been especially pronounced: revenue streams have evolved from reliance on basic management fees to diversified income from value-added services—including home maintenance marketplaces, community e-commerce platforms, real estate brokerage, and elderly care solutions—all integrated with the physical asset portfolio [5, 6]. Digital technology simultaneously reshapes operational logic and value-creation mechanisms, enabling more precise resource allocation and unlocking novel appreciation pathways for the firm's underlying assets. Knowledge management assumes heightened strategic importance once resident data and service expertise are formally recognized as core organizational assets rather than incidental by-products. Functions historically viewed as cost centers—such as routine maintenance and security operations—now serve as structured data-generating interfaces with residents; firms that effectively interpret these interactions operate under a fundamentally different strategic paradigm than those focused solely on staffing and execution.

Clarifying the practical meaning of 'reconstruction' is essential, as the term may suggest greater scale or complexity than actual implementation entails. In practice, it comprises three interrelated shifts. First, the physical estate is instrumented—elevators and pumps are fitted with sensors, surveillance cameras are linked to intelligent analytics systems, and access control is digitized via mobile applications. Second, customer engagement migrates to a unified digital platform, shifting resident interactions from

telephone calls to app-based touchpoints, each generating traceable behavioral data [6]. Third, the revenue model expands beyond traditional management contracts to include bundled, platform-delivered services. Individually, these changes appear incremental; collectively, they redefine the firm's identity—and, critically, the competencies required of its workforce.

The causal direction must be emphasized: business model reconstruction drives workforce capability demands, not the reverse. When the underlying model evolves, associated competency requirements inevitably shift, necessitating comprehensive recalibration of hiring criteria, training curricula, and performance evaluation frameworks [7].

2.2. Dynamic Capabilities and the Competency Link

Why do some firms successfully navigate strategic renegotiation while others become immobilized? The dynamic-capabilities perspective provides a particularly illuminating framework. A triadic process—sensing emerging opportunities, seizing them effectively, and reconfiguring the organization's resource base—aligns closely with the demands of large-scale transformation. Digital and dynamic capabilities have been found to advance business-model innovation, with dynamic capability serving as a mediating mechanism and organizational inertia acting as a contextual moderator. Furthermore, dynamic capabilities consistently mediate the relationship between digital transformation initiatives and organizational performance across diverse operational contexts. Crucially, this framework clarifies that competency development is not a peripheral support function appended to strategy; rather, it constitutes the essential reconfiguring component of dynamic capability. A firm unable to renew its human competencies lacks the foundational capacity to reconfigure meaningfully [8].

The role of organizational inertia warrants closer attention, as it reveals a more nuanced theoretical contribution. While often portrayed as a barrier to adaptation, empirical evidence suggests a dual nature: inertia may also reflect accumulated domain knowledge, well-established operational routines, and a valuable, extant resource base—elements worthy of refinement rather than replacement. This interpretation resonates strongly in the property management sector [9]. The existing workforce is not an unformed resource to be discarded or overwritten; it possesses deep, tacit relational knowledge about buildings and resident communities—insights that no digital dashboard can fully codify. Viewed through this lens, the reconfiguration challenge centers not on substituting such knowledge but on integrating digital competencies with it—a task fundamentally rooted in targeted training rather than wholesale recruitment, and one requiring greater sophistication than simplistic calls for radical overhaul imply (As shown in Figure 1).

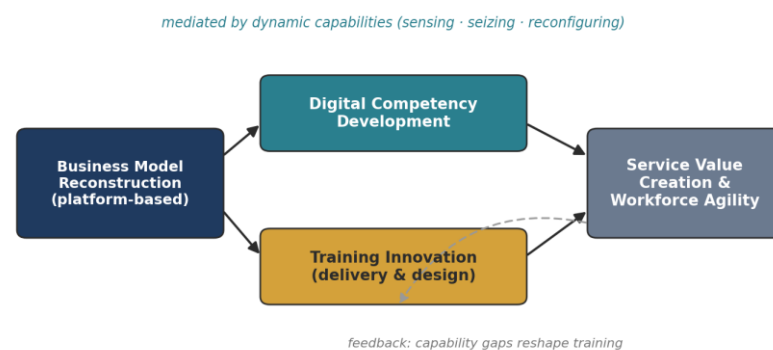


Figure 1. Conceptual Framework Linking Business Model Reconstruction, Digital Competency Development, and Training Innovation through Dynamic Capabilities.

2.3. From Skills to Competency Portfolios

The older language of "skills" no longer fits [10]. Skilled use of a single tool matters less than a portfolio: data literacy, comfort on operating platforms, the ability to maintain smart devices, digital customer-service fluency, a working sense of analytics, and a baseline of cyber-awareness. Research on digital competency-building strategy indicates that success depends not primarily on technology but on leadership support, organizational culture, and employee engagement. Empirical evidence further shows that employees fluent with digital tools tend to be more productive and better equipped to respond to change, and digital literacy consistently correlates positively with job performance—often mediated by employee agility.

That mediation through agility reframes the purpose of competency development. The goal of building digital literacy is not to transform every role—such as a security guard—into a specialized function like data analysis. Rather, it is to cultivate a workforce comfortable with digital tools so that it can adapt more rapidly to evolving requirements; in sectors undergoing continuous transformation, the capacity to sustain adaptation outweighs mastery of any single skill. A firm treating training as a one-off certification against today's platform will face renewed challenges when the platform changes; by contrast, a firm that fosters genuine digital fluency acquires enduring capacity to navigate future shifts. This distinction—between developing capabilities for a fixed state versus cultivating adaptive trajectories—represents a foundational conceptual divide.

3. Reorganizing Digital Competency Development

If the model sets the demand, what does the demand actually look like on the ground? Figure 2 sketches the shape of the gap as it tends to appear in leading firms: the competencies the reconstructed model requires, set against the level the existing workforce brings. The pattern is not subtle [11]. Requirements sit high across the board; current capability trails everywhere, and the shortfall is widest precisely where the new value-added businesses are most exposed — analytics-driven decision-making and cyber-awareness.

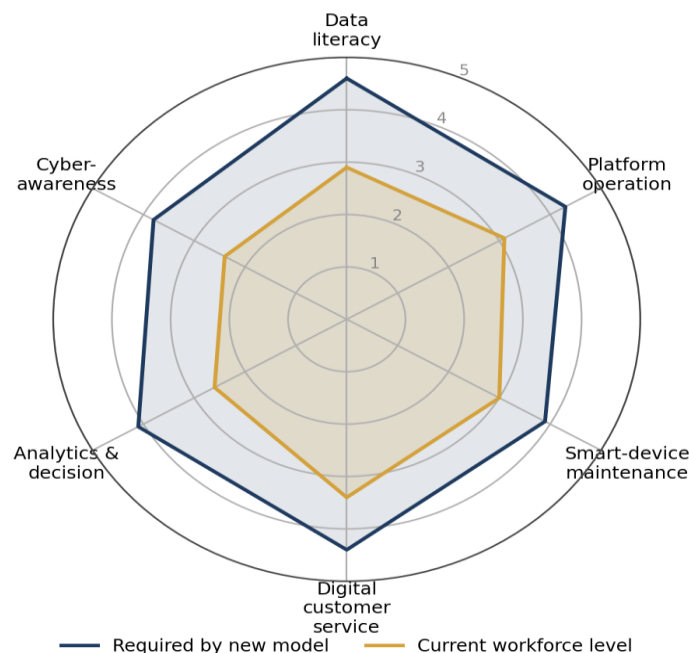


Figure 2. Illustrative Gap between Competencies Required by the Reconstructed Platform Model and Current Workforce Capability (1 = Low, 5 = High).

Two things follow. The first is that a gap analysis of current skill levels must precede any programme design — a well-established principle in training and competency

development practice, yet one frequently overlooked in implementation. Rushing to procure a learning platform before identifying actual skill deficits often results in inefficient resource allocation without measurable improvement in capability. The second is that the gap is not evenly distributed across the workforce. Frontline service staff, security and maintenance teams, and community managers each require distinct subsets of the overall digital competency portfolio, rendering a single company-wide curriculum largely ineffective. A tiered approach, calibrated to the digital maturity expectations of each role, proves more effective — consistent with recent findings on successful digital workforce training.

There is a cultural dimension that a purely competency-based framing may overlook. Digitization efforts are often impeded less by technical ability than by cautious engagement with new tools — a tendency observed particularly among experienced frontline staff. Property service work is inherently relational and physical, and a workforce whose professional identity centers on presence and personal interaction may find dashboard-based decision support difficult to embrace. Competency development initiatives that neglect this context can be perceived as imposing external standards rather than enabling growth, limiting their practical impact.

How do high-performing firms actually build this competency portfolio? The prevailing pattern emphasizes embedding learning directly into daily tasks rather than establishing centralized digital academies. For example, a maintenance technician learns a new fault-reporting application by applying it during real service calls, supported by a digitally proficient colleague during initial deployment; a community manager develops analytics literacy by interpreting a simple occupancy dashboard and articulating its implications. This represents an updated form of apprenticeship — grounded in authentic work contexts — which avoids positioning technology as a performance test. Evidence strongly supports this customized, role-embedded approach over generic e-learning delivered uniformly across the organization. Though more time-intensive and operationally demanding than licensing off-the-shelf platforms, it delivers demonstrable outcomes.

A cautionary note is warranted here, reflecting an unresolved practical consideration rather than an established conclusion. Embedding competency development within daily operations carries the risk of conflating task execution with deep understanding. A technician who completes a report using the application has engaged with the tool, but may lack sufficient conceptual grounding to handle edge cases or exceptions not covered by the interface. A distinction exists between the operational efficiency of learning-by-doing and the conceptual depth afforded by structured instruction, and the sector has not yet reached consensus on how best to balance these modes. The optimal mix likely varies by role: frontline transactional tasks benefit most from embedded practice, whereas analytical roles underpinning value-added services require more formalized, scaffolded learning. This inference arises from the nature of the competency demands, not from definitive empirical validation.

4. Training Innovation: Delivery, Design, and Purpose

The competency gap cannot be closed using the traditional training systems inherited by most property firms. These systems were designed for standardized, classroom-based instruction—adequate for conveying procedural tasks such as cleaning protocols, but ineffective for developing analytical judgment. Consequently, the more significant evolution lies in how training is now delivered, designed, and purposefully applied.

4.1. The Shift in Delivery

The clearest movement is away from the classroom. Since the pandemic, learning-and-development functions have moved decisively toward blended formats and digital delivery, with self-paced micro-learning and video content displacing text-heavy, instructor-led sessions—a shift linked directly to measurable gains in engagement and performance. Figure 3 renders the change in stylized form for a representative leading

firm: classroom hours compress year on year while digital and immersive modalities, from e-learning to VR-based equipment simulation to on-the-job digital coaching, expand to fill the space. The trajectory is not unique to property services, but it lands harder here because the sector started from an unusually classroom-heavy, manual-driven base.

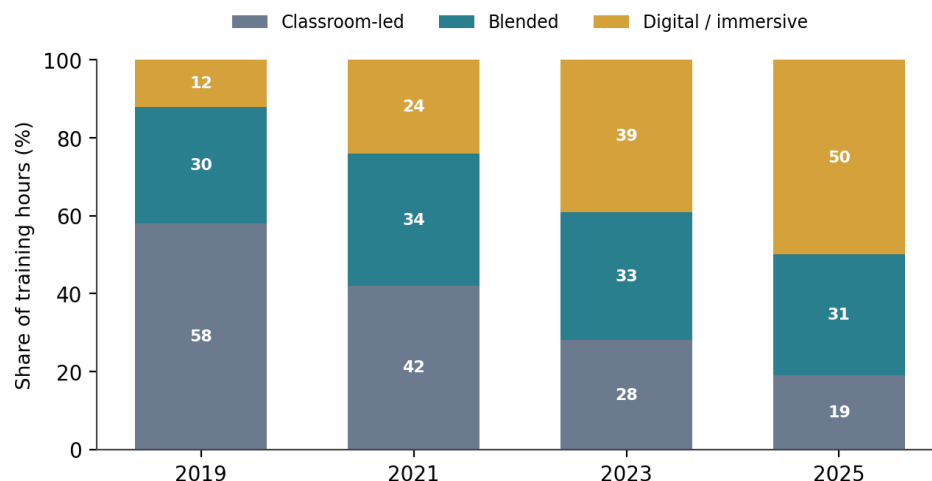


Figure 3. Illustrative Shift in the Composition of Training Hours in a Leading Property Service Enterprise, 2019--2025.

The immersive end of that spectrum deserves a specific mention, because it is where property services has an advantage the office-bound sectors lack. Much of the work is physical and involves high-risk operational contexts—servicing lift machinery, managing alarm system interfaces, responding to plant room water ingress—and these are precisely the situations where classroom instruction has historically been least effective and hands-on practice most resource-intensive. Simulation-based training, whether VR or lighter tablet-driven scenarios, lets a technician rehearse critical operational procedures dozens of times without risk. That is not a marginal convenience; it is a qualitatively superior method for building competencies that previously depended on infrequent, real-world exposure. The firms investing here are, in effect, manufacturing experience.

Reading all of this as pure progress would be a mistake. Digital delivery scales effectively and supports personalization, but it also removes the social scaffolding that underpinned classroom training: peer learning, informal mentoring, and the implicit affirmation that the organization values direct, in-person investment in its people. For a relational service business whose core offering rests on human attentiveness, that trade-off is significant. A training system that implicitly prioritizes screen-time over face-time may, without deliberate intent, weaken the very quality customers value most. The firms managing the shift most successfully appear to recognize this intuitively. They treat digital delivery as an amplifier of human coaching rather than a substitute for it, and they sustain the social rituals of learning even as the content migrates online [12, 13].

4.2. The Shift in Design and Purpose

Beneath the change in delivery lies a deeper shift in the fundamental purpose of training. In the traditional model, training served primarily to certify compliance: learners mastered prescribed standards, received formal sign-off, and fulfilled procedural requirements. In the reconstructed model, training functions as an operational lever for organizational reconfiguration—the mechanism through which dynamic capability is actively enacted. This conceptual reframing yields three distinct practical implications, contrasted in the table below against the prior logic (As shown in Table 1).

Table 1. Contrasting Logics of Employee Training Before and After Business Model Reconstruction.

Dimension	Traditional training logic	Reconstruction-era training logic
Objective	Certify compliance with fixed standards	Build reconfigurable digital competency portfolios
Delivery	Classroom-led, standardized, periodic	Blended, immersive, continuous, embedded in work
Design basis	Role manuals and seniority	Gap analysis by role and digital maturity
Success metric	Attendance and pass rates	Competency uplift, agility, service-value creation
Cultural stance	Training as obligation	Training as engagement and shared identity

What unifies the table is the final row. Empirical findings consistently emphasize organizational support, leadership commitment, and cultural alignment as decisive factors in whether competency development achieves meaningful impact [11, 14]. Organizations that position digital training initiatives as tangible expressions of investment in employee growth—rather than as tools for intensifying output expectations—sustain higher levels of engagement; those that do not often encounter disengagement and inefficient resource allocation. The reframing presented in the right-hand column is substantive, not superficial. Shifting the primary success metric from attendance to demonstrable competency uplift fundamentally alters what is measured, funded, and incentivized; retaining attendance as the key indicator risks reverting the entire system to a compliance-oriented paradigm, regardless of strategic intent. In this domain—as in many others—measurement criteria shape outcomes.

5. Discussion and Implications

Pull the threads together and a fairly clear argument emerges. Business-model reconstruction sets the competency demand; competency development is the reconfiguring work of dynamic capability; training innovation is the instrument that carries out that work. The three are not sequential steps but constitute a single integrated loop, with a feedback mechanism running in the opposite direction — every capability gap identified within the workforce should inform and refine the next cycle of training (Figure 1). When this loop is disrupted — and in many organizations it is — the business model advances ahead of the people expected to implement it, and the anticipated value from platform-based services fails to fully materialize.

Three implications follow for practitioners, best articulated as reasoned inferences rather than formal findings [15]. First, begin with diagnosis: conduct thorough, role-specific gap analysis before adopting any learning technology, since deploying a platform to address an undiagnosed challenge yields no meaningful improvement. Second, differentiate: structure the competency framework according to role responsibilities and digital readiness, rather than applying a uniform curriculum across functions, and combine digital delivery methods with personalized coaching to preserve the relational integrity of service delivery at scale. Third, attend deliberately to organizational culture. Frontline concerns serve as critical signals influencing adoption effectiveness, not as barriers to be dismissed; training initiatives that recognize and affirm employees' professional identities consistently demonstrate stronger outcomes than those that frame staff solely as variables to be optimized for automation.

There is a theoretical contribution worth stating explicitly. Much of the dynamic-capabilities literature treats reconfiguration as an abstract organizational attribute without specifying the human processes through which it occurs. Property services render those processes observable. Here, reconfiguration is not metaphorical: it manifests as a security professional interpreting an access-control dashboard, a maintenance team using a fault-reporting application, or a community manager analyzing occupancy metrics.

Competency development and training represent the operational interface where the reconfiguring dimension of dynamic capability becomes tangible. Integrating insights from dynamic capabilities theory with those from human capital development constitutes the paper's principal conceptual advancement, and this integration extends beyond property services to any service-oriented sector undergoing digital transformation.

The boundaries of this account warrant transparent acknowledgment. The framework is conceptual in nature, illustrated through examples rather than empirically tested, and the figures are schematic — designed to clarify structural relationships rather than convey quantified magnitudes; readers should interpret them as visual representations of the argument, not as empirical data. The evidence base draws primarily on research from related sectors, reflecting the limited availability of property-service-specific studies on workforce transitions [13]. This scarcity itself underscores a broader knowledge gap, yet it also means the inferences presented here remain tentative. Whether the proposed loop holds under longitudinal, firm-level measurement — using objective, system-generated behavioral logs favored in recent operations research, rather than self-reported perceptions — remains an open empirical question. That question defines the logical next step: tracking a cohort of leading firms over multiple years, directly measuring competency advancement and its association with service-value outcomes, to assess whether the loop operates in practice with the coherence suggested here. Real-world implementation will almost certainly prove more complex and iterative than the model implies.

6. Conclusion

Leading property service enterprises in China have advanced their business model transformation more rapidly than their workforce development, and the resulting misalignment constitutes a critical strategic risk. In this context, building digital competency and innovating training practices are not peripheral HR functions; they are essential levers for translating platform-level ambitions into operational reality—or allowing them to remain unrealized conceptual exercises. Competitive advantage will accrue not necessarily to firms with the most advanced technology, but to those that prioritize the human dimension of organizational reconstruction with equal rigor as the technological dimension—and design evidence-informed training interventions calibrated to a precisely measured capability gap.

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