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STARTUP ECOSYSTEM OF ALBERGO DIFFUSO: DIGITAL ORCHESTRATION OF VALUE CO-CREATION

The article addresses the problem of the infrastructure gap and high entry barriers to the Ukrainian hospitality industry during the recovery period. The research hypothesis states that transforming the traditional scattered hotel framework into a digital-centric ecosystem enables decentralised destinations to overcome infrastructure gaps and achieve economic resilience via an Asset-Light strategy, which compresses initial capital requirements by systematically integrating pre-existing community housing assets through a unified IT platform. The study employs a systems approach to ecosystem architecture design, an analysis of international case studies (Sextantio, Nipponia, Limehome), the DART model decomposition method, and predictive simulation modelling of investment and operational parameters based on empirical data from Ukrainian hotel developers. It is demonstrated that transforming a classical scattered hotel into a digital-centric ecosystem allows for the effective capitalisation of authentic community assets without significant expenditures on new construction. The startup orchestrator is defined as an integrative platform that creates a "digital layer" over dispersed objects through the synergy of SaaS solutions, IoT, and Fintech tools. Four vectors of the DART model are operationalised: Dialogue (via direct communication modules), Access (NFC/IoT systems), Risk Assessment (verification via Diia.Signature and SOP protocols),

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СТАРТАП-ЕКОСИСТЕМА ALBERGO DIFFUSO: ЦИФРОВА ОРКЕСТРАЦІЯ СПІВТВОРЕННЯ ЦІННОСТІ

Розглянуто проблему інфраструктурного розриву та високого бар'єру входу в готельний бізнес України в умовах відновлення. Гіпотеза дослідження ґрунтується на припущенні, що трансформація традиційної моделі розсіяного готелю у цифроцентровану екосистему дозволяє децентралізованим destinations долати інфраструктурні розриви та забезпечувати економічну стійкість території завдяки Asset-Light стратегії, що мінімізує початкові капітальні витрати шляхом системної інтеграції наявного житлового фонду громад через єдину IT-платформу. У ході дослідження застосовано системний підхід до проектування архітектури екосистеми, аналіз міжнародних кейсів (Sextantio, Nipponia, Limehome), метод декомпозиції моделі DART, а також імітаційне моделювання інвестиційних та операційних параметрів на основі емпіричних даних готельних девелоперів України. Доведено, що трансформація класичного розсіяного готелю у цифроцентровану екосистему дозволяє ефективно капіталізувати автентичні активи громад без значних витрат на нове будівництво. Стартап-оркестратор визначено як інтегративну платформу, що створює "цифровий шар" над розрізненими об'єктами через синергію SaaS-рішень, IoT та Fintech-інструментів. Операціоналізовано чотири вектори моделі DART: діалог (через модулі прямої комунікації), доступ (системи NFC/IoT), управління ризиками (верифікація через "Дія.Підпис" та SOP-



and Transparency (automated revenue distribution via Split Payments). A "Business-in-a-Box" model is proposed to minimise the deficit of entrepreneurial skills among community residents. The scientific novelty lies in the theoretical substantiation and conceptual modelling of a architecture for the Albergo Diffuso startup ecosystem as a spatially distributed digital orchestrator, where the application of S-D logic and the DART model at the IT-platform level allows for the systematic transformation of a community's authentic housing stock from a passive resource base into a dynamic network of value co-creation, thereby re-defining the startup's institutional role as a digital verifier of local authenticity. The practical significance of the results is found in the potential for the intellectual capitalisation of local assets as a basis for the economic resilience of territories in the post-crisis period.

Keywords: scattered hotel, DART model, S-D logic, integrative IT platform, Asset-Light strategy, tourism destination management.

протоколи) і прозорість (автоматизований розподіл доходів Split Payments). Запропоновано модель "Business-in-a-Box", що мінімізує дефіцит підприємницьких навичок у мешканців громад. Наукова новизна полягає у теоретичному обґрунтуванні та концептуальному моделюванні архітектури стартап-екосистеми Albergo Diffuso як просторово розподіленого цифрового оркестратора, де застосування S-D логіки та моделі DART на рівні IT-платформи дозволяє трансформувати наявний житловий фонд громади з пасивного ресурсного базису в динамічну мережу спільного створення цінності, переформатувавши інституційну роль стартапу як цифрового верифікатора автентичності. Практична значущість результатів полягає у можливості інтелектуальної капіталізації локальних активів як основи економічної стійкості територій у посткризовий період.

Ключові слова: розсіяний готель, модель DART, S-D логіка, інтегративна IT-платформа, Asset-Light стратегія, менеджмент туристичних дестинацій.

JEL Classification: L26, O33, Z32.

Introduction

Ukraine's tourism sector demonstrates resilience: 2025 budget revenues rose by 50.6% (UAH 4 426.2 million) (State Agency for Tourism Development, 2026). However, hostilities caused USD 10.2 billion in damages (World Bank, 2024), and the current rate of new hotel construction is insufficient, to meet demand, the existing room supply must expand by at least 30–40% (Ribas Hotels Group, 2024). Traditional development is hindered by a high "cost per key" ranging from USD 20 000 to 50 000 (Ribas Hotels Group, 2023), necessitating a transition to Asset-Light models like Albergo Diffuso (AD) – a decentralised accommodation facility integrated into a community under unified management. AD directs investment into digital infrastructure and service quality rather than new construction, transforming the tourism product into a dynamic value co-creation process between "temporary residents," the community, and an IT platform.

The AD concept (Dall'Ara, 2015) focuses on territorial revitalisation and cultural codes. Value co-creation is rooted in Service-Dominant (S-D) logic (Vargo & Lusch, 2004) and operationalised via the DART model (Dialogue, Access, Risk, Transparency) proposed by Prahalad and Ramaswamy (2004). Technological facilitation of the customer experience is explored by Sigala (2018) and Gretzel et al. (2015). Within the Ukrainian academic environment, Tkachenko substantiated the strategic priorities and mechanisms for tourism and hospitality development (Tkachenko &

Dupliak, 2021). Conceptual foundations of innovative business models for market recovery are explored by Mykhailichenko et al. (2023), while Zabaldina (2024) identifies strategic vectors for the transformation of the domestic tourism market. However, aspects of forming AD startup ecosystems based on Wade's (2019) "digital orchestrator" concept remain under-researched. The lack of applied models for such integration in the domestic market defines the necessity of this study.

The aim of the research is the theoretical substantiation, development, and techno-economic validation of an applied model for an Albergo Diffuso startup ecosystem based on the value co-creation paradigm, digital orchestrator functions, and an Asset-Light investment strategy adapted to the recovery of the Ukrainian tourism market.

The research hypothesis assumes that transforming the classic AD model into a digital-centric ecosystem allows for overcoming infrastructure gaps and ensures territorial economic resilience through an Asset-Light strategy, minimising initial capital expenditure (CAPEX) by leveraging existing community assets.

The scientific novelty of the study lies in the theoretical substantiation and methodological structuring of a conceptual architecture for the Albergo Diffuso startup ecosystem as a spatially distributed digital orchestrator. Unlike existing approaches to scattered hotel management that rely on traditional linear coordination, a new methodological framework integrates Service-Dominant (S-D) logic with the formal decomposition of the DART model at the IT-platform level. This methodological approach allows for the systematic transformation of a community's authentic housing stock from a passive resource base into a dynamic network of value co-creation, theoretically redefining the startup's institutional role as a digital verifier of local authenticity.

To achieve the stated objective, the study utilises a systems approach for ecosystem architecture, comparative analysis for orchestration models, and DART model decomposition for functional requirements, complemented by financial forecasting to validate the financial and investment parameters of the asset-light strategy. The information base includes SATD statistics (2026), RDNA3 data (World Bank, 2024), and Digital Travel Trends 2025 (Cloudbeds, 2025), alongside case studies of international projects such as Sextantio, Nipponia, and Limehome. To strengthen the analytical arguments and anchor the simulation matrix in real-world economic conditions, the research integrates empirical commercial data, cost-per-key benchmarks, and turnkey development metrics from leading Ukrainian hospitality developers and operators, as well as baseline market pricing for custom B2B mobile software engineering and IoT integration from domestic software deployment agencies.

The scope is limited to rural/settlement areas in Ukraine with authentic architecture, accounting for contextual barriers: the digital divide and security challenges of the state of war. Consequently, these external factors introduce certain methodological limitations, shift the research toward predictive simulation modelling, and restrict the immediate generalizability of the empirical findings to uniformly safe regional destinations.

The main body consists of two sections. The first substantiates the conceptual architecture of the AD startup ecosystem as a digital orchestrator. The second reveals the mechanisms of value co-creation between stakeholders using DART model decomposition.

1. Conceptual architecture of the albergo diffuso startup ecosystem as a digital orchestrator

The classical Albergo Diffuso (AD) model, though effective for territorial revitalisation, faces functional limitations under digital transformation. Unlike the proximity-based manual management of traditional AD, Ukraine's decentralised market necessitates a transition to a digital-centric startup ecosystem. By prioritising intellectual capital and rapid scaling over physical assets, AD evolves into a dynamic network of stakeholders coordinated by a unified digital hub. This ecosystem format ensures operational flexibility and viability under conditions of high uncertainty.

To substantiate this transition, the differences between the classical model and the proposed startup ecosystem have been systematised (*Table 1*).

Table 1

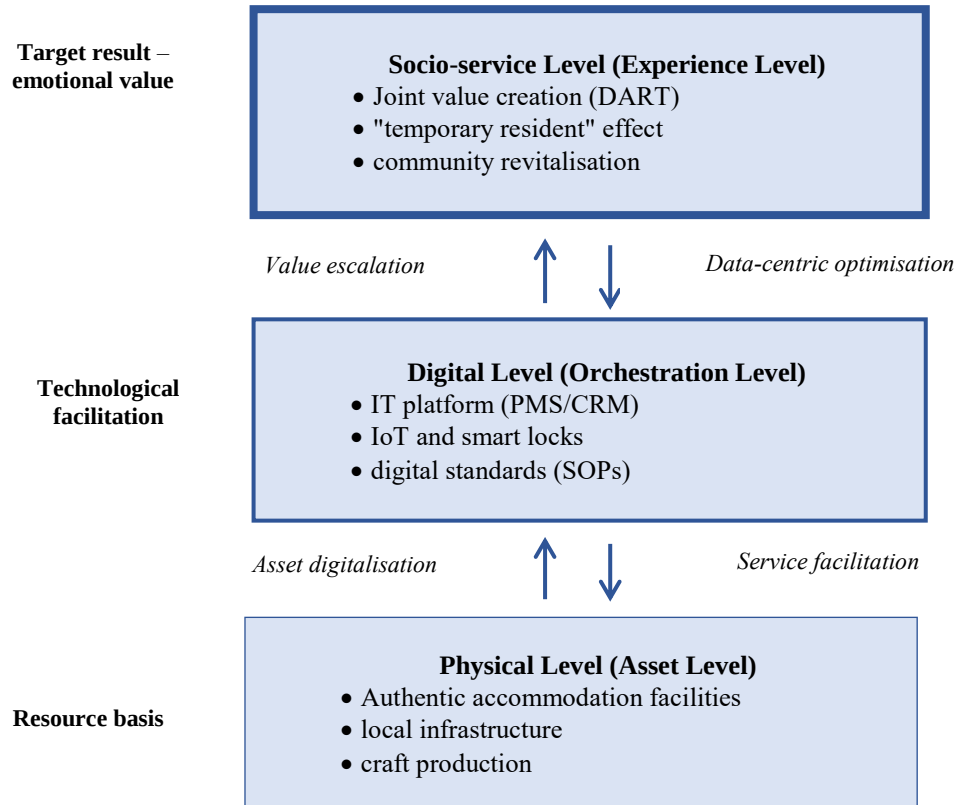
Comparative characteristics of the traditional AD model
and the startup ecosystem

Comparison parameter	Traditional model (classic AD)	Startup ecosystem (digital AD)
Management centre	Local office / Manager	Digital orchestrator (IT platform)
Scalability	Low (limited to a single settlement)	High (potential for network expansion)
Asset type	Property ownership or lease	Asset-Light (data and standards management)
Value creation	Linear (provision of accommodation services)	Joint creation (value co-creation) via the platform

Source: developed by the author based on (Dall'Ara, 2015; Prahalad & Ramaswamy, 2004; Wade, 2019).

A shift in the management paradigm leads to the emergence of a new entity – the startup as a "digital orchestrator". This is a hybrid management structure that integrates an IT platform with operational management to coordinate autonomous partners without direct ownership of their

assets (Wade, 2019). The conceptual architecture of such an ecosystem is based on a three-level structure reflecting the value escalation hierarchy (*Figure*).



Hierarchical model of value creation in the Albergo Diffuso startup ecosystem

Source: developed by the author.

The hierarchy reflects a logic of value escalation, transforming local assets into a competitive product (Pine & Gilmore, 2011). The Asset Level serves as the resource base (authentic buildings, infrastructure), which possesses high tangible value but low operational efficiency in isolation (Dall'Ara, 2015). The Orchestration Level provides the "intellectual substance," utilising IT tools (PMS, IoT, digital SOPs) to transform physical space into a synchronised service network (Vargo & Lusch, 2014). Finally, the Experience Level is the target where joint value is formed; through technological facilitation, guests gain the status of "temporary residents," while the community receives an impetus for revitalisation and economic development.

To clarify the functional role of the digital orchestrator, it is necessary to analyse the typology of international startup projects that implement various versions of the Albergo Diffuso model. Modern global practice demonstrates a transition from the "preservationist" approach to high-tech service networks (*Table 2*).

Table 2

A typology of digital orchestrator business models
in global Albergo Diffuso practice

Orchestrator type	Business model	Startup project (country)	Key orchestration function	Role of the digital platform
Conceptual pioneers	Social entrepreneurship (heritage-centric)	Sextantio (Italy), Adriatic village (Croatia)	Revitalisation of cultural heritage and ethnographic control of authenticity	A tool for brand distribution and marketing the community experience
Technological scalars	Regional revitalisation (scalable ecosystem)	Nipponia (Japan)	Synchronisation of dispersed community assets with global distribution systems (GDS)	Centralised operating system for network management and loyalty programmes
Pure orchestrators	Asset-Light Tech (digital-centric)	Limehome (Germany), Be.Mate (Spain)	Full automation of logistics, cleaning, and access without physical on-site staff	"Digital brain": algorithmic pricing and IoT-driven management (smart lock)

Source: developed by the author based on (Dall'Ara, 2015; Sigala, 2018; Wade, 2019; Cloudbeds, 2025).

Global practice confirms that success depends on transitioning from physical asset concentration to digital orchestration (Wade, 2019). Sextantio (Italy) coordinates craftsmanship via a "Civic Heritage" model (Dall'Ara, 2015); Nipponia (Japan) scales regionally by integrating abandoned houses with local agriculture (Sigala, 2018); Be.Mate (Spain) manages urban logistical hubs; Limehome (Germany) utilises radical asset-light automation (Cloudbeds, 2025); and Adriatic Village (Croatia) implements "digital keys" for cultural clusters. For Ukraine, a hybrid model – synthesising Nipponia's community engagement with European PropTech efficiency – is most promising. This approach ensures the ecosystem serves as both a commercial platform and a catalyst for territorial socio-economic recovery, aligning with the strategic vectors of national tourism market transformation (Zabaldina, 2024).

Global practice confirms that the effectiveness of orchestrators depends on local adaptation (Mykhailichenko et al., 2023). For Ukraine, requirements synthesized from ecosystem theory (Wade, 2019), asset-light concepts (Cloudbeds, 2025), and S-D logic (Vargo & Lusch, 2004) focus on scalability without losing authenticity. Key tools – interoperability, digital SOPs, and transparent revenue sharing – mitigate stakeholder distrust of decentralised networks. Consequently, the orchestrator evolves from a tech

intermediary into a strategic facilitator harmonising local and global interests through a hybrid (IT + on-site) management structure (*Table 3*).

Table 3

Matrix of requirements for a startup orchestrator in the context of the Ukrainian tourism market

Requirement category	Key functional parameters	Target effect for the ecosystem
Technological (digital stack)	Interoperability (API), IoT integration, Data Analytics, mobile superapp	Creation of a "digital twin" of the destination and a seamless customer journey
Operational (service core)	Digital SOPs (photo-verification), logistical optimisation, cloud quality control	Guarantee of network quality standards under decentralised ownership
Economic (asset-light)	Scalability, automated revenue sharing, legal tech (smart contracts)	Minimisation of CAPEX and transparent distribution of value-added among partners
Socio-relational (DART-basis)	Community inclusiveness, trust-building (ratings), preservation of the cultural code	Capitalisation of social trust and authenticity as the primary asset
Security (Resilience)	Crisis management protocols, offline data access, energy independence	Ensuring system viability under conditions of high turbulence

Source: developed by the author based on (Vargo & Lusch, 2014; Wade, 2019).

Thus, within the Albergo Diffuso model, the startup orchestrator emerges as an "invisible operator" that eliminates knowledge and capital asymmetries (Prahalad & Ramaswamy, 2004). It assumes responsibility for complex technological and marketing processes, allowing the community to concentrate on hospitality. The startup's compliance with these stated requirements establishes the essential conditions for the realisation of value co-creation processes.

2. Digital orchestration of value co-creation in Albergo Diffuso based on the DART model framework

While the architecture of the startup ecosystem determines its structural robustness, the mechanisms of value co-creation define its dynamic effectiveness (Vargo & Lusch, 2014). Within the Albergo Diffuso model, the consumer ceases to be a passive recipient of services and becomes an active participant – a "temporary resident" – who, alongside the community, shapes a unique experience (Dall'Ara, 2015). To operationalise this process, the application of the DART model, adapted to the specificities of digital orchestration, is most appropriate.

For the startup orchestrator, each DART element is transformed into a specific functional interaction tool (*Table 4*).

Table 4

Operationalisation of the DART model within the Albergo Diffuso digital orchestration system

DART element	Context in digital AD	Role of the startup orchestrator	IT platform requirements
Dialogue	Transition from transactional booking to active communication between the guest, the property owner, and the community	Facilitation via a mobile application (chatbots, recommendations, direct connection with local artisans)	Support for P2P chats, AI assistants, and context-aware push notifications based on geolocation
Access	Providing the guest with access to the "lifestyle" and community resources without the need for ownership	Creation of a "digital key" (IoT) that unlocks the doors of cottages, museums, and craft locations	Integration with IoT protocols (NFC/BLE), SuperApp architecture, and cloud scalability
Risk assessment	Shared responsibility for security and quality within a decentralised and dispersed environment	Stakeholder verification, provision of safety standards, and rapid response protocols	Integration with Diia.Signature, end-to-end encryption, and hashing of audit logs (SOP quality control).
Transparency	Openness of pricing algorithms and the guest's understanding of their contribution to community development	Visualisation of price structures, automation of payments, and social impact reporting	FinTech API (split payments) for automated fund distribution and real-time dashboards

Source: developed by the author based on (Dall'Ara, 2015; Prahalad & Ramaswamy, 2004; Wade, 2019).

In the IT context, the orchestrator functions as an integrative platform, creating a cohesive "digital layer" by synergising market-ready SaaS, IoT, and Fintech tools (Wade, 2019). This architecture creates a "controlled adventure" – the paradox of feeling protected by digital intelligence within an authentic environment – which is a primary driver of the Experience Economy (Pine & Gilmore, 2011).

Regarding DART operationalisation, Dialogue transforms the guest into an active co-author. Real-time modules like "Local Expert" connect tourists with residents for authentic interactions. Research confirms that such personalised dialogue increases CSAT by 22% and return visits by 18% (Cloudbeds, 2025).

Access implements the Asset-Light principle via "Unified Digital Keys" (NFC/IoT). In international practice, such IoT integration has reduced staff costs by 15-20% and increased RevPAR by 12% through cross-selling (Sigala, 2018; Cloudbeds, 2025).

Risk Assessment positions the orchestrator as a security guarantor. For Ukraine (2026), this includes safe route mapping and offline access to services, which are critical for market resilience. Transparency mitigates information asymmetry through "Impact Dashboards." Ethical transparency increases LTV by 25%, aligning with the preferences of 76% of younger travellers (Booking.com, 2025).

The digital trust stack ensures security without asset ownership. It utilises Diia.Signature for mandatory stakeholder verification, eliminating fraud (Ministry of Digital Transformation of Ukraine, 2024). Quality is controlled via dynamic SOPs with photo verification and GPS-stamped audit logs, creating an "immutable quality history." Finally, Split Payments via banking APIs automatically distribute funds between property owners and community development funds.

To transition from the theoretical attributes of the DART framework to empirical and analytical verification, it is necessary to examine the current economic realities of the Ukrainian hospitality market. Under the conditions of recovery and high security uncertainties, traditional greenfield hotel development faces an inflation of capital expenditures (CAPEX). The focus is intentionally placed on the 3-star and mid-scale investment apartment segment, as it represents the most resilient and high-demand tier for domestic tourism recovery, while providing an identical baseline of room-level comfort and functional utility that the Albergo Diffuso model delivers through localised asset integration. To establish a realistic baseline for comparison, *Table 5* systematises empirical data from leading Ukrainian hotel operators and developers regarding the cost of traditional 3-star and mid-scale investment apartment development, with a specific focus on rural and decentralised destinations.

Table 5

Development costs of traditional mid-scale (3*) lodging facilities
in Ukraine by region

Hotel operator (developer)	Project examples	Object specification	Av. Dev. Cost per sq.m. (fully finished & furnished), USD	Av. Dev. Cost per Key (fully finished & furnished), USD	Rural / Mountainous destination specifics
Ribas hotels group (operator (developer))	Ribas rooms network (3-star business hotels, multiple sites in western Ukraine: Lviv, Truskavets, Ivano-Frankivsk region)	3-star hotel; 20–50 rooms; reinforced-concrete or lightweight-frame structure; full FF&E included; room area: 20–24 m ²	800–1200	20 000–50 000	Timber framing reduces structural costs by up to 20% vs. RC frame. Higher engineering costs due to remote logistics and autonomous utility systems (generators, heat pumps)
CCG development (developer / consultant)	WOL by Ribas apart-hotel network & resort infrastructure complexes (Lviv, Polyanytsia, Ivano-Frankivsk region)	3-star apart-hotel; boutique / apart format; 25–60 m ² apartments; full turnkey: design, construction, finishing, FF&E	1700–2000	45 000–65 000	+10–15% budget premium on materials and logistics vs. urban sites. High upfront capital expenditures required for basic infrastructure (access roads, main utility grids)

End of Table 5

Hotel operator (developer)	Project examples	Object specification	Av. Dev. Cost per sq.m. (fully finished & furnished), USD	Av. Dev. Cost per Key (fully finished & furnished), USD	Rural / Mountainous destination specifics
Sensar development (developer)	Smart hill apart-hotel (Yaremche, Ivano-Frankivsk region, Carpathians)	Apart-hotel; full resort infrastructure; underground parking; managed by Ribas hotels group	1860–2200	35 000–60 000	Increased construction cost driven by complex mountain terrain, specialized deep foundations, and heavy panoramic glazing. High seasonal demand dependency
Blago developer (developer)	Son daven apart-hotel (Yaremche, Ivano-Frankivsk region, Carpathians)	3-star resort apart-hotel; boutique mountain design; modern + hutsul-style architecture; underground parking; recreational zones; full hotel management (Ribas hotels group)	800–4200	120 000–160 000	Premium tier hospitality project. Highest CAPEX inflation due to architectural facade complexity, premium Hutsul-style materials, and an extensive turnkey resort amenity package

Source: compiled by the author based on official market data from Bild.ua (n. d.), Forbes Ukraine (2024), Ribas Hotels Group (2023), and Son Daven Project (Son Daven Project, n. d.).

The empirical data in *Table 5* clearly demonstrate that traditional greenfield development in rural areas suffers from infrastructure-driven capital inflation. Due to the lack of centralised engineering networks in decentralised communities, developers are forced to invest heavily in the deployment of autonomous utilities (drilling wells, installing transformer substations, building sewage treatment systems).

This data serves as a strict baseline to verify our hypothesis via simulation modelling. We analyse a scenario in which a destination aims to bring a capacity of 20 keys (rooms) to the market. In the Albergo Diffuso ecosystem model, we assume a scenario of pure digital integration: the local hosts already possess authentic, ready-to-operate rural cottages or apartments that meet comfort standards but lack market distribution. Therefore, the physical construction/renovation CAPEX for the startup orchestrator is USD 0. The financial and operational comparison of these two distinct structural approaches is simulated in *Table 6*.

Table 6

Comparative simulation analysis of investment and operational parameters (20-key model)

Performance indicator / comparison criterion	Option A: traditional 3* small hotel (greenfield development)	Option B: AD startup ecosystem (Asset-Light digital integration)	Analytical justification / data source
Construction / renovation CAPEX, USD	1 500 000	0	<i>Option A:</i> based on table 5 average data (USD 75 000 per key USD/times 20 rooms). <i>Option B:</i> leveraging existing ready-to-operate local housing assets
Digital infrastructure / IT & IoT CAPEX, USD	5 000	30 000	<i>Option A:</i> standard PMS license purchase. <i>Option B:</i> startup platform MVP development (20 000 USD) + 20 IoT smart locks with installation (10 000 USD)
Total project CAPEX, USD	1 505 000	30 000	The digital ecosystem model achieves a 50-fold reduction in initial capital requirements for the destination
Time-to-market, months	18–24	0.25–0.5 (1–2 weeks)	<i>Option A:</i> designing, permitting, and physical construction. <i>Option B:</i> host onboarding, legal compliance, and IoT hardware deployment
Average Daily Rate (ADR), USD	50	45	A slight introductory discount is applied to the AD model to stimulate initial market demand
Annual occupancy (Occ), %	45	50	Driven by the platform's network effect, localised experiential marketing, and ethical consumption trends
Gross Operating Profit (GOP), %	35	45	Higher in the AD model due to the absence of fixed overhead costs for large communal facilities and radical automation
Break-even point, % occupancy	32	15	Calculated as the ratio of fixed operating expenses to marginal revenue
Payback period (ROI), years	9–11	< 1.0 year (6–9 months)	Calculated based on discounted cash flows relative to the ultra-low initial technological CAPEX

Source: compiled by the author based on official market data from Bild.ua (Bild.ua, n. d.), Forbes Ukraine (2024), Ribas Hotels Group (2023), Son Daven Project (Son Daven Project, n. d.).

The results of the simulation modelling presented in *Table 6* provide quantitative verification of the research hypothesis, allowing for analytical conclusions regarding the structural transformation of hospitality models through the economic prisms of time, yield, and operational efficiency. While traditional greenfield development requires an initial capital expenditure of over USD 1.5 million to bring a capacity of 20 keys to the market, the digital orchestrator activates the exact same capacity with a highly optimized, digital-only CAPEX of just USD 30 000, which represents an empirical baseline derived from current Ukrainian market prices for digital deployment, custom mobile development, and B2B hospitality solutions (Chyzh Agency, n. d.; KitApp, n. d.). This contrast is fundamentally determined by the structural nature of the assets involved: traditional development

freezes capital and escalates interest risk due to a protracted 18 to 24-month cycle driven by mandatory physical stages such as land allocation, structural concrete curing, and complex interior fit-outs. Conversely, the digital Albergo Diffuso framework bypasses the physical construction phase entirely by activating pre-existing rural cottages and local distributed infrastructure. This compresses the total time-to-market to a mere 1–2 weeks (0.25–0.5 months), a timeline required exclusively for the installation of smart hardware kits, localised host onboarding, and digital synchronisation with the central Property Management System.

This operational agility and minimised capital pressure directly shape the pricing and demand dynamics within the experience economy. The baseline ADR of USD 50 for a traditional mid-scale hotel is structurally driven by the necessity to cover substantial fixed-asset amortisation and extensive centralised property-management overheads. In contrast, setting a slightly lower ADR of USD 45 for the Albergo Diffuso network serves as an effective penetration pricing mechanism to capture market flows. This marginal discount successfully compensates the guest for the decentralised layout of the destination while leveraging the authenticity of distributed rural hosts to offer a superior price-to-value ratio. Consequently, this market approach yields a more stable, crisis-resilient annual occupancy rate of 50%, compared to the traditional 45% baseline which remains highly vulnerable to seasonal demand drops.

The horizontal flexibility of distributed rural households allows for the optimisation of the underlying cost structure, ensuring operational resilience via a low break-even point. A traditional hotel's GOP is structurally capped at 35% due to heavy operational inflation, including continuous public area utility costs, building maintenance, and static staff payrolls. The digital orchestrator model expands the GOP to 45% by converting these heavy liabilities into a variable, distributed layout managed primarily by local hosts, eliminating public areas and automating contactless access to slash on-site labour overheads. This structural transition fundamentally alters the financial margin of safety, lowering the operational threshold required to reach profitability from 32% occupancy in traditional hotels to just 15% within the digital network. Because the fixed operating expenditures are minimised and the marginal cost of maintaining an unrented decentralised room is borne primarily by the host, the system remains financially viable.

Ultimately, the synthesis of these operational indicators results in a divergence in investment returns, effectively validating the systemic viability of the asset-light approach. A traditional hotel requires a lengthy 9 to 11-year payback period because its operating cash flow must slowly amortise the massive initial heavy CAPEX exceeding USD 1.5 million. On the other side of the matrix, because the digital orchestrator's initial investment entry barrier is strictly limited to a digital-only CAPEX of USD 30000 for mobile software and smart hardware deployment, the physical capital intensity is virtually non-existent. When combining this minimal entry point with an

accelerated time-to-market and an expanded 45% GOP margin, the platform fully recovers its total initial technology outlays within the first 6 to 9 months of operation. This accelerated capital turnover provides a rapid, low-risk path to sustainable economic recovery, demonstrating how a traditionally vulnerable real estate business can be transformed into a flexible, shock-resistant digital ecosystem for decentralised rural regions.

Although the digital platform provides operational transparency, the fundamental subject of the ecosystem is the territorial community, which fills the Albergo Diffuso architecture with authentic content. In this model, the community transforms from a passive object of observation into an active co-owner and co-author of the tourism product (*Table 7*).

Table 7

Role matrix of the community in the startup ecosystem

Community role	Functional manifestation	Contribution to value creation
Asset provider	Providing authentic cottages, granaries, and workshops for revitalisation	Formation of a unique housing stock that is impossible to replicate
experience creator	Conducting workshops and excursions, hosting shared dinners, and storytelling of local legends	Creation of an "experience economy" and emotional connection with the guest
service partner	Local cleaning, catering (home-made breakfasts), and logistics	Ensuring the operational viability of the system "on-site"
Guardian of the cultural code	Preservation of traditions, architectural style, and local dialect	Protecting the brand from "commoditisation" and the loss of identity

Source: developed by the author.

Successful implementation in Ukraine requires mitigating low digital trust and skill deficits through functional simplification. The orchestrator addresses distrust through Transparency (DART), in which automated fund distribution turns "abstract code" into a reliable tool. To bridge the skills gap, the "Business-in-a-Box" model embeds marketing, legal, and accounting functions into the Orchestration Layer, allowing communities to focus on authentic service.

Consequently, the orchestrator evolves into a digital institute for authenticity verification, dematerialising trust-building through digital protocols. This enables a "leapfrogging" effect for Ukrainian destinations: bypassing standardised mass tourism to integrate directly into high-tech ethical consumption. In the recovery era, economic resilience stems from the intellectual capitalisation of local assets rather than capital construction, shifting location selection toward strategic points of socio-technological resonance.

An objective evaluation of the developed model requires outlining its structural and contextual boundaries. First, due to the current absence of fully functioning, digital-centric Albergo Diffuso platforms in the Ukrainian tourism market, the technical and economic analysis relies on simulation

modelling. The quantitative metrics utilised (ADR, Occupancy, GOP) represent weighted-average forecasted values extrapolated from independent lodging statistics and traditional condo-hotel performance data.

Second, the geographical and security scope of the model is restricted to relatively safe decentralised destinations (primarily the Western and South-Western regions of Ukraine), as asymmetric warfare risks cannot be uniformly automated or quantified within standard business models.

Third, the operational viability of the platform relies heavily on the baseline assumption that the target rural community possesses stable internet connectivity (or localised satellite infrastructure such as Starlink) to support real-time IoT synchronisation and cloud quality-control audits. These identified boundaries define the vectors for future empirical research, which will focus on piloting the developed algorithm within a specific territorial community using a live pool of localised housing assets.

Conclusions

As a result of this study, a practical model for forming an Albergo Diffuso startup ecosystem has been theoretically substantiated and developed, based on a synthesis of the value co-creation paradigm and the functions of a digital orchestrator. The results fully confirm the scientific hypothesis underlying the research: the transformation of the classic dispersed hotel model into a digital-centric startup ecosystem effectively overcomes the infrastructural gap of decentralised destinations. It has been proven that the level of digital orchestration, implemented through an IT platform, IoT solutions, and digital standards, serves as the critical link that synchronises the community's fragmented physical assets and transforms them into a cohesive, high-value-added service product.

The scientific novelty of the findings lies in the substantiation of a conceptual architecture for the Albergo Diffuso startup ecosystem. For the first time, it integrates the functions of an IT platform as a "digital orchestrator" with value co-creation tools to ensure the strategic integrity and service standardisation of a decentralised business environment. This creates the necessary conditions for the technological leapfrogging of domestic destinations.

The practical value of the results lies in the development of the "Business-in-a-Box" model, which mitigates the lack of entrepreneurial skills among community residents through automation and the functional simplification of complex business processes. The implementation of a "digital trust stack" based on verification via state services (specifically Diia.Signature) and split payment technologies creates a transparent environment for value co-creation. This allows communities to bypass the phase of building traditional mass infrastructure and integrate immediately into the global market of ethical high-tech consumption.

The proposed methodology for decomposing the DART model has enabled the translation of abstract interaction parameters into specific

functional requirements for the IT platform, confirming the applied nature of the research. In this model, the economic resilience of territories is achieved not through capital construction, but through the intellectual capitalisation of existing local assets. Future research in this direction will focus on developing a multi-criteria mathematical algorithm for destination selection and identifying specific promising locations in relatively safe regions of Ukraine for the implementation of pilot projects for a startup orchestrator.

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