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Human-Centered Business and Urban Ecosystems for Sustainable Value Creation

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ABSTRACT: Objective: to develop an integrated conceptual model of family-friendly environments as a factor in the capitalization of contemporary business structures and urban spaces, and to construct a corresponding composite index for its assessment. Methods: comparative analysis and synthesis of two parallel research streams, family-supportive organizations and child- and family-friendly cities, combined with a systemic design approach linking the enterprise, urban, and system levels. Results: a systemic home-work-city model is established, in which family-friendly workplace practices (flexible and remote work, caregiving leave, childcare and lactation spaces, inclusive leadership) and family-friendly urban design (safe pedestrian and green zones, service accessibility, family participation in planning) generate measurable capitalization effects through strengthened human capital, ESG performance, and intangible assets at the enterprise level, and through hedonic real estate premiums, area attractiveness, and demographic resilience at the territorial level. An Integral Family-Friendliness Index, based on min-max normalization and weighting of five indicators across both levels, is proposed for comparative assessment. Significance: the model demonstrates that family-friendly design functions not as a cost but as a capitalizable strategic asset, providing a foundation for managerial and urban-planning decisions, with particular relevance for the postwar recovery of Ukrainian cities and enterprises.

KEYWORDS: family-friendly environments, capitalization, human capital, ESG, systemic design, urban planning, intangible assets.

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Introduction

In the modern economy, the greater part of the value of leading companies derives not from tangible but from intangible assets: corporate culture, reputation, and the loyalty of consumers and employees, together with the capacity for innovation. Long-term value is increasingly determined precisely by these factors (Edmans, 2023). The social component of such assets is directly related to the extent to which the environment in which a person works and lives is friendly to that person's family roles and needs. Family friendliness should be regarded not as a localized benefit but as a cross-cutting characteristic of two interconnected environments: the working environment of a business structure and the public space of a city. The conceptual framework presented in this paper builds upon the author's Child-Centered Environment Method (CCEM), extending it from organizational implementation to an integrated systemic model applicable to business structures and urban environments.

Scholarly attention to these two environments is growing, yet it has developed largely in parallel. On one hand, a field of family-supportive organizations is taking shape, in which researchers examine formal policies (flexible work arrangements, caregiving leave, and support for parenthood) alongside the informal climate of support (Kossek et al., 2025). Systematic reviews find that corporate work-family initiatives yield measurable benefits simultaneously for employers, employees, and their families (Jack et al., 2025). On the other hand, the concept of child- and family-friendly cities is developing, one that reorients local governance decisions toward the interests of children and families (Powell, 2024) and reconceives the design of streets and neighborhoods as safe, walkable, and inclusive spaces (Michail et al., 2025). What remains unresolved is the integration of these two lines of inquiry within a single framework, that of systemic design and capitalization, in which family friendliness is treated as a factor in the growth of economic value.

Systemic design proceeds from the premise that any high-quality design solution is systemic by nature: it requires identifying interacting systems of varying scale and constructing an adaptive process, open to self-regulation, for reconciling them (Porqueddu, 2022). With respect to family friendliness, this means that the working environment of an enterprise and the public space of a city should not be designed in isolation but as a single system of home, work, and city, in which decisions made at one level reinforce effects at another.

At the level of the business structure, a family-friendly environment is shaped by flexible and remote work arrangements, caregiving leave and support for parenthood, physical elements (childcare rooms, breastfeeding spaces), and an inclusive culture together with supportive leadership (Kossek et al., 2025). Empirical syntheses indicate that such measures increase productivity, engagement, and staff retention while reducing absenteeism (Jack et al., 2025). Through the strengthening of human capital, these effects translate into ESG performance and, ultimately, into the long-term value of the company: human capital management practices are positively associated with firms' ESG indicators (Cai et al., 2024), and ESG factors themselves form part of the intangible assets that determine long-term value (Edmans, 2023). At the level of urban space, family friendliness is embodied in safe pedestrian and play zones, green areas, service accessibility following the "15-minute city" logic, and the involvement of families in planning (Powell, 2024; Michail et al., 2025); the presence of these qualities is amenable to structured measurement through indicator scales (Sapsağlam & Eryılmaz, 2024). A systematization of design elements, mechanisms, and channels of capitalization by level is presented in Table 1.

Table 1

Design Elements, Mechanisms, and Channels of Capitalization of Family-Friendly Environments by Level

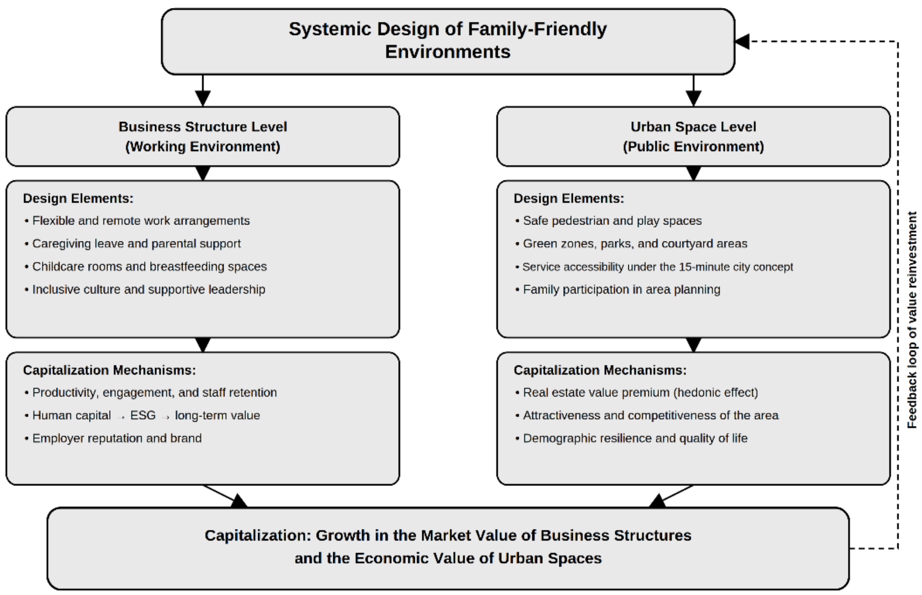
Level	Design Elements	Mechanism of Influence	Channel of Capitalization
Business structure (working environment)	Flexible work arrangements, caregiving leave, childcare spaces, supportive leadership	Productivity, employee engagement and retention; strengthening of human capital	Intangible assets, ESG profile, market value of the enterprise
Urban space (public environment)	Safe pedestrian and play zones, green areas, the 15 minute city, family participation in planning	Quality of life, attractiveness, and demographic resilience of the area	Hedonic premium in real estate value, competitiveness of the space
System (interaction of levels)	Coordinated design linking home, work, and city	Synergy and network effects between levels	Aggregate growth in the capitalization of the local ecosystem

Source: developed by the author.

The systematization presented above shows that family friendliness functions as a common denominator of two value-creating circuits. However, individual elements are capitalized only when they are combined into a coherent system: an enterprise's investments in family support achieve their full effect only when the surrounding public space is of corresponding quality, and vice versa. The logic of this systemic link, closed by a feedback loop of reinvesting the value created, is summarized in Figure 1.

Figure 1

Systemic Model of the Capitalization of Family-Friendly Environments



Source: constructed by the author.

The capitalization mechanism at the territorial level has a measurable manifestation in real estate prices. Hedonic modeling demonstrates a substantial value premium for proximity to a high-quality public environment: parks and urban forests raise the price of adjacent parcels by approximately 19.2% and 17.1%, respectively (Setiowati et al., 2024), while optimizing the spatial arrangement of green zones can increase the aggregate (net) value of a territory's housing stock (Li et al., 2024). This confirms that family-friendly design of space is not purely a cost item: it is transformed into a capitalized asset of the territory. For managerial application, it is advisable to consolidate these heterogeneous effects into a single dimension. The proposed Integral Family-Friendliness Index (IFFI) combines components from both levels through min-max normalization of indicators and their weighting; an approximate structure of the index, with illustrative normative-expert weights, is presented in Table 2.

Table 2

Structure of the Integral Family-Friendliness Index (IFFI): Illustrative Model

Component	Indicator	Level	Illustrative Weight
Support for work-family integration	Share of employees covered by flexible arrangements and caregiving leave	Business structure	0.25
Family-friendly physical work environment	Availability of childcare/family and lactation spaces	Business structure	0.15
Safety and accessibility of public spaces	Pedestrian accessibility of safe play and green zones	Urban space	0.25
Service density of the territory	Accessibility of services within a 15-minute radius	Urban space	0.20
Participatory involvement	Engagement of families in environmental planning	System	0.15

Source: developed by the author.

The weights are illustrative (normative-expert) and require empirical calibration (Delphi/AHP). The value of the IFFI is interpreted as the position of an object (an enterprise, a district, a city) within a range from 0 to 1: the higher the value, the more fully the environment realizes its capitalization potential through family friendliness. The proposed model is normative-methodological in nature: the weights presented are illustrative and are subject to refinement through expert procedures and verification against empirical data.

Family-friendly environments should be treated as a single systemic object of design, one that encompasses both the working environment of business structures and the public urban space and that functions as a factor in their capitalization. Capitalization occurs through two interconnected circuits: at the enterprise level, through productivity, staff retention, and the strengthening of human capital, ESG profile, and intangible assets; at the territorial level, through the hedonic premium in real estate value and the increased attractiveness and demographic resilience of the space. Systemic coordination of these two circuits produces a synergistic effect greater than the sum of the individual solutions. The proposed Integral Family-Friendliness Index (IFFI) establishes a foundation for comparative

assessment and for managerial and urban-planning decision-making. Prospects for further research relate to the empirical calibration of the index weights through expert methods and its verification against Ukrainian data, particularly in the context of the postwar recovery of cities and enterprises.

References

Cai, X., Xiang, H., Neskorodieva, I., & Durmanov, A. (2024). Interrelation between human capital management and ESG engagement: evidence from S&P 500 firms. *Humanities & Social Sciences Communications*, *11*(1). https://doi.org/10.1057/s41599-024-04189-6

Edmans, A. (2023). The end of ESG. *Financial Management*, *52*(1), 3–17. https://doi.org/10.1111/fima.12413

Jack, M. M., Baird, M., & Hill, E. (2025). The impact of firm-level work and family initiatives on organizational outcomes, employees and their families: an umbrella review. *Community, Work & Family*, 1–60. https://doi.org/10.1080/13668803.2025.2563055

Kossek, E. E., Vaziri, H., Perrigino, M. B., Lautsch, B. A., Pratt, B. R., & King, E. B. (2025). Reenvisioning family-supportive organizations through a diversity, equity, and inclusion perspective: A review and research agenda. *Journal of Management*, *51*(6), 2520–2548. https://doi.org/10.1177/01492063241310149

Li, J., Ossokina, I. V., & Arentze, T. A. (2024). The impact of urban green space on housing value: A combined hedonic price analysis and land use modeling approach. *Journal of Sustainable Real Estate*, *16*(1). https://doi.org/10.1080/19498276.2024.2432758

Michail, N., Ozbil Torun, A., & Parnell, R. (2025). Towards child-friendly and walkable cities: Children's insights on neighbourhood design. *Cities & Health*, 1–20. https://doi.org/10.1080/23748834.2025.2494880

Porqueddu, E. (2022). Systemic Spatial Design: Enhancing the potential of spatial design disciplines to navigate adaptive cycles in cities. *Contexts - The Systemic Design Journal*, *1*. https://doi.org/10.58279/v1003

Powell, R. (2024). Child-Friendly Cities and Communities: opportunities and challenges. *Children's Geographies*, 1–14. https://doi.org/10.1080/14733285.2024.2353746

Sapsağlam, Ö., & Eryılmaz, A. (2024). Building child-Friendly Cities for sustainable child development: Child-Friendly City Scale-Child Form. *Sustainability*, *16*(3), 1228. https://doi.org/10.3390/su16031228

Setiowati, R., Koestoer, R. H., & Andajani, R. (2024). Valuation of urban green open space using the hedonic price model. Global Journal of Environmental Science and Management, 10(2), 451–472. https://www.gjesm.net/article_708260.html