

## **BARRIERS FACED BY ENTREPRENEURS WITH DISABILITIES AND WAYS TO OVERCOME THEM**

### **ABSTRACT**

The entrepreneurial activity of persons with disabilities constitutes one of the critical dimensions of contemporary economic policy, playing a decisive role in ensuring the economic and social integration of this population group. This article identifies and analyses the primary barriers confronted by entrepreneurs with disabilities in Bukhara region, Uzbekistan, on the basis of a structured empirical survey of 120 disabled entrepreneurs combined with a systematic literature review, and subsequently proposes a scientifically grounded multi-component model for overcoming these barriers. Findings reveal that the most significant obstacles are limited access to financial resources (cited by 74.2% of respondents), insufficient adaptive infrastructure (68.3%), low accessibility of information and advisory services (61.7%), institutional and legal barriers (54.2%), and socio-psychological challenges (49.2%). Drawing on comparative analysis of international best practices in five countries — Germany, Finland, South Korea, India, and Kazakhstan — a four-component support model adapted to the Uzbekistan context is proposed.

**Keywords:** *persons with disabilities, entrepreneurship barriers, inclusive economy, financial inclusion, adaptive infrastructure, social entrepreneurship, disability and employment, Uzbekistan, Bukhara region, multi-component support model*

### **1. INTRODUCTION**

Ensuring the economic participation of persons with disabilities is enshrined as a priority obligation of the international community in the United Nations Convention on the Rights of Persons with Disabilities (CRPD, 2006). Article 27 of the Convention guarantees the right of persons with disabilities to work on an equal basis with others, and places upon States Parties the obligation to take effective measures to advance these rights [1]. However, international evidence consistently shows that the gap between these legal guarantees and lived reality remains significant in many countries, particularly in developing and transitional economies [2].

Globally, approximately 1.3 billion people — 16% of the world's population — are recognized as living with some form of disability, and the majority face serious difficulties in accessing adequate employment or business opportunities [4]. The World Bank estimates that the economic cost of disability is equivalent to a loss of 3–7% of GDP for most developing countries [4]. According to the ILO, persons with disabilities are on average 13–20% less economically active over their lifetimes compared to non-disabled persons [3].

In the Republic of Uzbekistan, more than 700,000 disabled citizens were officially registered as of 2022, of whom only an estimated 18–22% are formally employed [5]. Bukhara region, as one of Uzbekistan's leading cultural and tourism centers, presents a particularly instructive context: its rich historical heritage, vibrant artisan traditions, and expanding service sector create additional opportunities for entrepreneurs with disabilities that remain substantially underutilized because existing barriers are multi-layered and mutually reinforcing.

### **2. MATERIALS**

The theoretical and empirical foundation of this study rests on three principal groups of sources: inclusive entrepreneurship theory, the social model of disability, and international empirical research.

The social model of disability (Oliver, 1990) constitutes the primary theoretical anchor [7]: a person's limited opportunities are not the product of their biological condition but of barriers created by society. Sen's (1999) capability approach provides a second theoretical orientation [8]: evaluating development requires placing at its centre the expansion of real freedoms — the ability

to participate in economic and social life. Financial barriers, infrastructure constraints, and information gaps are theoretically equivalent as factors contracting the real opportunity set of entrepreneurs with disabilities.

**Table 1. Key Theoretical Frameworks and Empirical Sources**

Source / Author	Year	Type	Core Contribution to Present Study
Oliver, M. — Social Model of Disability	1990	Theory	Principal framework: barriers arise from society, not individual biology
Sen, A. — Capability Approach	1999	Theory	Real opportunity set analysis; legislative vs. practical freedom gap
Kitching & Smallbone — UK Study	2012	Empirical	Financial barriers and discrimination as primary inhibiting factors
Boylan & Burchardt — UK DWP Report	2002	Policy/Empirical	Three-category barrier classification: institutional, financial, socio-cultural
Marlow & McAdam — Gender × Disability	2013	Empirical	Compounded discrimination at intersection of gender and disability
UNDP Uzbekistan — Analytical Brief	2021	Institutional	Systemic barriers in Uzbekistan; no region-level empirical data
ILO — Central Asia Diagnostic	2022	Institutional	Labour market gaps for disabled persons in Central Asia
European Commission — Disability Strategy	2021	Policy	First explicit identification of "barrier-free entrepreneurship" as policy priority
WHO & World Bank — World Disability Report	2011	Institutional	Global prevalence and economic cost of disability
World Bank — Disability Inclusion	2023	Institutional	3–7% GDP economic cost of disability in developing countries

*Table 1. Theoretical frameworks and key empirical/institutional sources underpinning the study design, barrier classification, and model development.*

### 3. METHODS

This study applies a mixed-methods research design integrating three complementary methodological strands: systematic literature review, primary survey research, and comparative international analysis.

#### 3.1. Systematic Literature Review

A systematic literature review was conducted in accordance with the PRISMA protocol across four databases: Scopus, Web of Science, Google Scholar, and EBSCO. From an initial pool of 218 articles published between 2000 and 2024, 57 sources were selected for in-depth thematic analysis following application of inclusion and exclusion criteria.

#### 3.2. Survey Research

A structured survey of 120 entrepreneurs with disabilities in Bukhara region was conducted between March and October 2024 using purposive sampling through the Bukhara Regional Employment Authority, regional disability associations (the Society of the Blind, the Society of the Deaf, the Association of Persons with Musculoskeletal Disorders), and entrepreneurship unions. The 38-item instrument covered nine thematic areas. Internal consistency was verified using Cronbach's alpha ( $\alpha = 0.81$ ). For respondents with hearing impairments, sign language interpreters were provided; for visual impairments, audio format was used. Quantitative data were processed in SPSS 27.0; qualitative data from 15 semi-structured interviews were analysed using thematic coding.

#### 3.3. Comparative International Analysis

Inclusive entrepreneurship support practices of five countries — Germany, Finland, South Korea, India, and Kazakhstan — were subjected to comparative analysis across three dimensions: financial support mechanisms; infrastructure and technology adaptation; and information and

development ecosystems. Country selection criteria included degree of legislative enforcement, dedicated institutional mechanisms, and feasibility of adaptation to the Uzbekistan context.

4. RESULTS

4.1. Socio-Demographic Profile of Respondents

Table 2. Socio-Demographic Profile of Survey Respondents (n=120, Bukhara Region, 2024)

Variable	Category	n	Share (%)
Gender	Male	67	55.8%
Gender	Female	53	44.2%
Age group	25–34 years	37	31%
Age group	35–44 years	46	38%
Age group	45–54 years	29	24%
Age group	55 years and above	8	7%
Education	Secondary vocational	49	41%
Education	Higher education	46	38%
Education	General secondary	25	21%
Disability type	Musculoskeletal system	53	44%
Disability type	Visual impairment	22	18%
Disability type	Hearing impairment	18	15%
Disability type	Neurological / mental health	16	13%
Disability type	Other types	11	10% (*)
Business duration	Up to 2 years	41	34%
Business duration	2–5 years	49	41%
Business duration	More than 5 years	30	25%
Business sector	Services	46	38%
Business sector	Handicrafts & artisan production	32	27%
Business sector	Retail trade	26	22%
Business sector	Processing of agricultural products	16	13%

Table 2. Full socio-demographic profile of survey respondents. (\*) Other types include combined/multiple disabilities, chronic illness-related impairments. Source: author's survey (2024).

Socio-Demographic Profile of Survey Respondents (n=120, Bukhara Region, 2024)

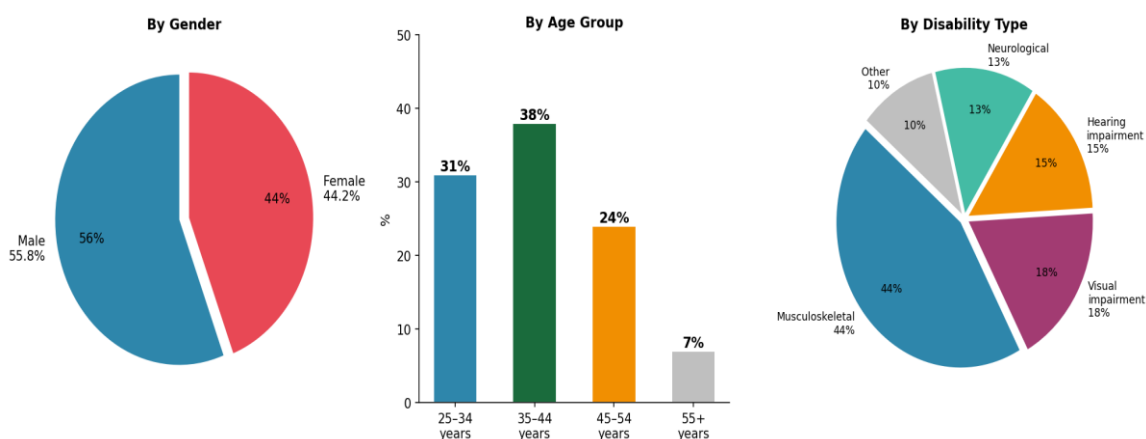


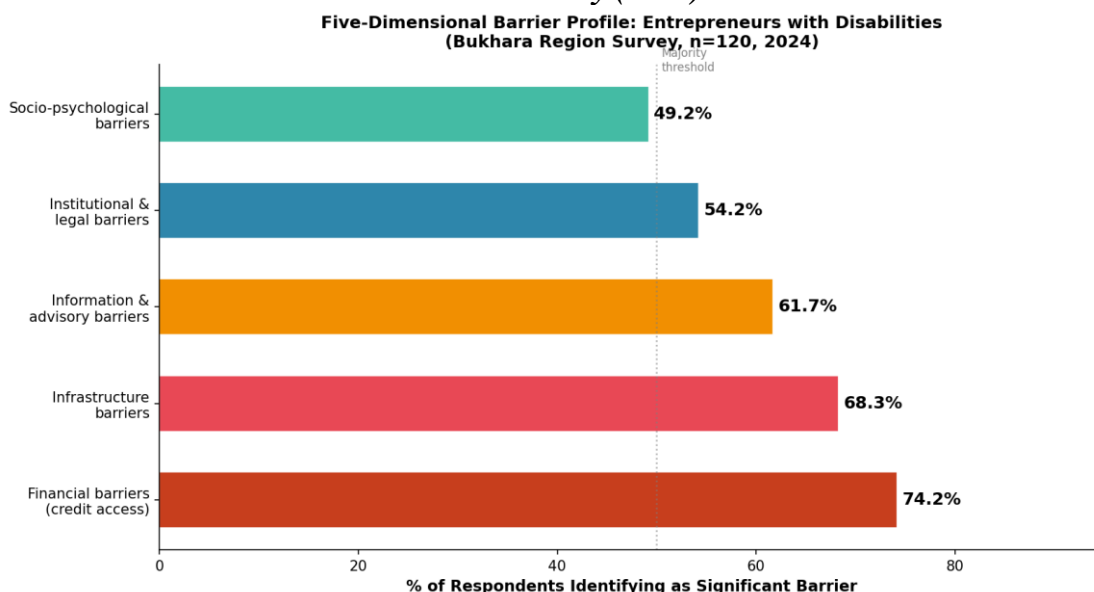
Figure 1. Respondent profile: gender distribution (left), age groups (centre), and disability type distribution (right). Survey, n=120, Bukhara Region, 2024.

### 4.2. Five-Dimensional Barrier Analysis

**Table 3. Summary of Five Barrier Dimensions (n=120, 2024)**

Barrier Dimension	% Citing as Significant	Key Sub-Components	Primary Policy Implication
1. Financial Barriers	74.2%	No collateral (61%); credit rejection (72%); unaware of subsidies (58%); application complexity (29%)	Collateral-free microcredit; simplified grant procedures
2. Infrastructure Barriers	68.3%	Unadapted premises (72%); transport problems (64%); adaptive tech costs (43%)	Universal design mandates; adaptive technology subsidies
3. Information & Advisory Barriers	61.7%	Unaware of support programs (58%); no adapted advisory (47%); legal/financial literacy gap (53%)	Unified digital portal; adapted advisory formats
4. Institutional & Legal Barriers	54.2%	Admin difficulties at registration (49%); tax concession confusion (42%); procurement exclusion (37% tried, 12% succeeded)	Second-generation legal reform; procurement quotas
5. Socio-Psychological Barriers	49.2%	Client skepticism (56%); partner distrust (47%); bank discrimination (38%); self-esteem barriers (44%)	Awareness campaigns; mentoring; role model promotion

*Table 3. Five-dimensional barrier classification with percentage of respondents citing each dimension as significant, key sub-components, and primary policy implications. Source: author's survey (2024).*

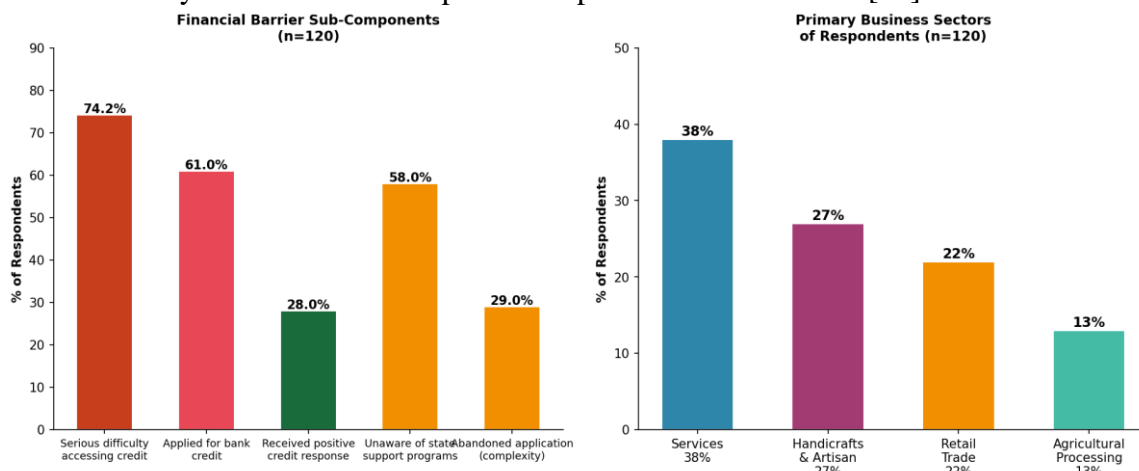


*Figure 2. Five-dimensional barrier profile: percentage of respondents identifying each dimension as a significant obstacle (n=120, Bukhara Region, 2024). Dotted line = 50% majority threshold.*

### 4.3. Financial Barriers — Detailed Analysis

Financial barriers emerged as the most widely reported obstacle (74.2%). Three interrelated components were identified. First, the absence of collateral assets: 61% of respondents had applied for bank credit, yet only 28% received a positive response. Second, the standardized character of commercial bank lending criteria, with no products adapted to the specific risk profiles of entrepreneurs with disabilities. Third, low utilization of state subsidies: 58% of respondents lack

sufficient information about available programs, while 29% were aware but abandoned the application process due to documentation complexity. Official data from the Bukhara Regional Employment Authority confirms that financial support for disabled business entities in 2024 accounted for only 3.7% of total entrepreneurship assistance disbursed [14].



**Figure 3. Left: Financial barrier sub-components (% of respondents, n=120). Right: Primary business sectors of survey respondents. Source: author's survey (2024); Bukhara Regional Employment Authority (2024).**

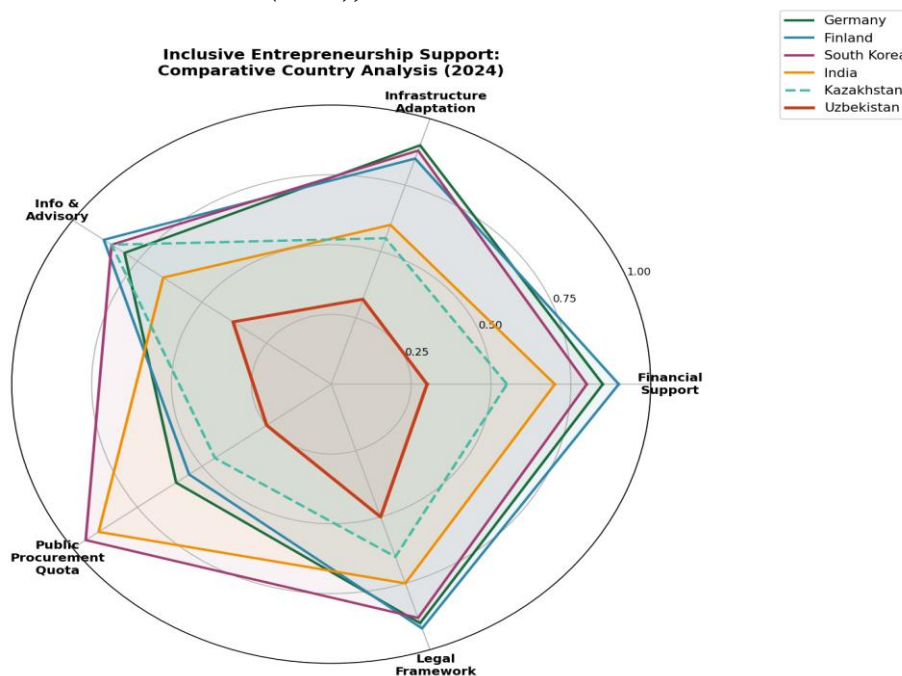
**4.4. International Comparative Analysis**

**Table 4. Inclusive Entrepreneurship Support: International Best Practice Comparison**

Country	Key Support Mechanism	Financial Instrument	Procurement Quota	Transferability to Uzbekistan
Germany	Inclusive franchising model: major corporations offer adapted contracts to disabled entrepreneurs	Corporate partnership funding; subsidized business premises	No dedicated quota	Medium: requires large corporate sector participation
Finland	Dedicated start-up capital fund: alternative assessment based on business plan (not credit score); 3-year mentoring guarantee	Start-up fund (non-collateral); state guarantee scheme	No dedicated quota	High: fund model directly replicable via state bank
South Korea	Inclusive business incubator network: fully adapted infrastructure; specialist consultants; post-incubator procurement access	Incubator-linked micro-grants; concessional credit	6% public procurement quota for graduates	Medium-High: incubator model adaptable; quota mechanism replicable
India	Dedicated microcredit network (up to 200,000 rupees without collateral); 4% government procurement quota for disabled entrepreneurs	Collateral-free microcredit (state-guaranteed)	4% government procurement quota	High: microcredit + quota model closest to Uzbekistan context

Kazakhstan	"Disability Entrepreneurship Portal": unified digital platform consolidating all support programs, government services, and mentors	Portal-facilitated access to existing programs	Partial (regional)	Very High: institutional context comparable; digital portal immediately replicable
Uzbekistan (current)	Fragmented: scattered subsidies, employment quotas; no dedicated disability entrepreneurship program	Standard commercial lending; limited subsidies	No dedicated quota (3.7% of support reached disabled entrepreneurs)	Baseline — to be improved through four-component model

**Table 4. Comparative analysis of inclusive entrepreneurship support mechanisms in five benchmark countries vs. Uzbekistan (2024). Source: European Commission (2021); ILO (2022); author's desk review.**



**Figure 4. Radar chart: inclusive entrepreneurship support capacity across five dimensions for six countries. Uzbekistan (red solid line) scores consistently below all five benchmark countries. Source: author's comparative assessment (2024).**

**4.5. Proposed Four-Component Support Model**

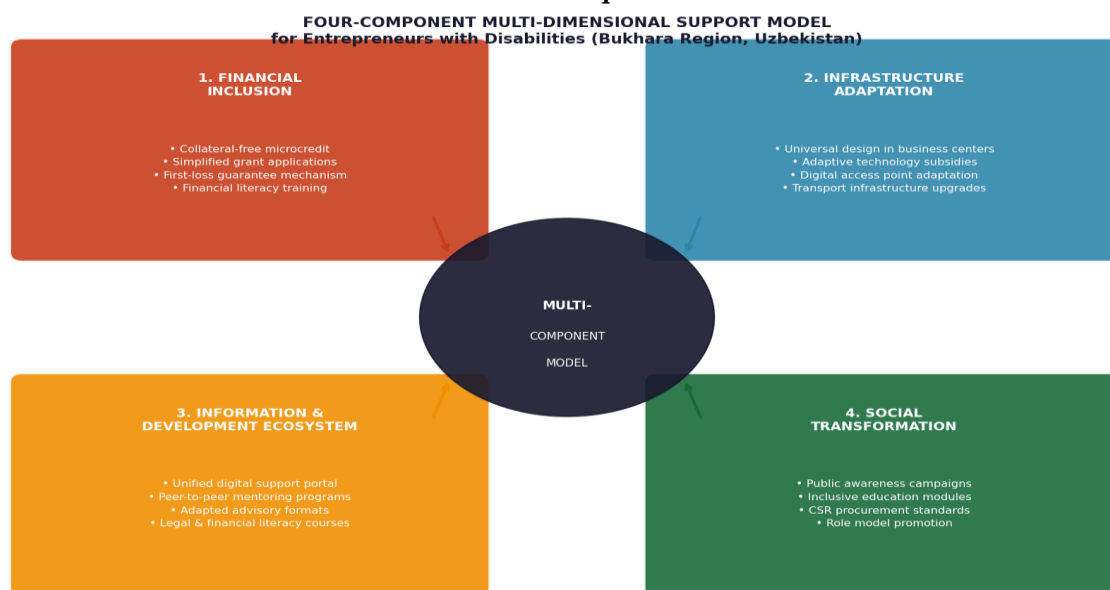
On the basis of research findings and international comparative analysis, a four-component multi-dimensional support model is proposed for entrepreneurs with disabilities in Bukhara region and Uzbekistan more broadly.

**Table 5. Four-Component Multi-Dimensional Support Model**

Component	Core Measures	International Model Referenced	SDG Alignment
1. Financial Inclusion	<ul style="list-style-type: none"> <li>Collateral-free microcredit lines for disabled entrepreneurs</li> <li>Simplified subsidy and grant application procedures</li> <li>"First-loss guarantee"</li> </ul>	Finland (start-up fund); India (microcredit network)	SDG 1 (No Poverty); SDG 8 (Decent Work & Economic Growth); SDG 10

	mechanism for banks <ul style="list-style-type: none"> <li>• Dedicated financial literacy training programs</li> </ul>		(Reduced Inequalities)
2. Infrastructure Adaptation	<ul style="list-style-type: none"> <li>• Phased universal design implementation in business centers and markets</li> <li>• Subsidies for adaptive technology acquisition</li> <li>• Digital access point adaptation</li> <li>• Transport infrastructure improvements</li> </ul>	South Korea (inclusive incubators); Germany (corporate premises)	SDG 9 (Industry, Innovation, Infrastructure); SDG 11 (Sustainable Cities)
3. Information & Development Ecosystem	<ul style="list-style-type: none"> <li>• Unified digital portal for all support programs</li> <li>• Peer-to-peer mentoring networks</li> <li>• Advisory services adapted for all disability types</li> <li>• Legal and financial literacy training in accessible formats</li> </ul>	Kazakhstan (disability portal); South Korea (advisory system)	SDG 4 (Quality Education); SDG 17 (Partnerships for the Goals)
4. Social Transformation	<ul style="list-style-type: none"> <li>• Public awareness campaigns on disability and entrepreneurship</li> <li>• Inclusive entrepreneurship modules in educational institutions</li> <li>• CSR procurement standards for large companies</li> <li>• Dedicated role model promotion programs</li> </ul>	Germany (inclusive franchising culture); Finland (inclusive education)	SDG 5 (Gender Equality); SDG 10 (Reduced Inequalities); SDG 16 (Inclusive Institutions)

**Table 5. Four-component multi-dimensional support model for entrepreneurs with disabilities: core measures, international models referenced, and alignment with UN Sustainable Development Goals.**



**Figure 5. Four-component multi-dimensional support model for entrepreneurs with disabilities (Sharipov, 2024). All four components converge on the central multi-component framework, mediated by partnerships between Bukhara State University, regional administration, and civil society organizations.**

## 5. DISCUSSION

The structural character of barriers facing persons with disabilities empirically corroborates the social model of disability (Oliver, 1990) [7] in the Uzbekistan and Bukhara region context: the large majority of identified barriers are attributable not to the individual's biological condition but to the inadequacy of the external environment — institutional, infrastructural, informational, and social. In particular, the gap between 74.2% of respondents reporting financial barriers and the 3.7% share of entrepreneurship support actually directed to disabled business entities reveals an institutional channel failure of diagnostic significance [14].

Evaluated through Sen's (1999) capability approach [8], the real opportunity set of entrepreneurs with disabilities is substantially narrower than the set of rights formally proclaimed by legislation. Financial barriers (74.2%), infrastructure constraints (68.3%), and information gaps (61.7%) collectively compress the real freedoms available to these entrepreneurs, demonstrating that legislative reform alone — however necessary — is insufficient without targeted practical interventions at each barrier dimension.

Context-specific patterns were also identified: information channel failure (58%) and the high cost of adaptive technologies (43%) emerge as barriers that receive comparatively little attention in the international literature but are highly salient in the Uzbekistan context — attributable, in part, to the relative youth of digital inclusion policy and the underdevelopment of the adaptive technology market. The proximity of Kazakhstan's institutional experience and its comparability with Uzbekistan make the digital portal model the most immediately replicable priority recommendation.

## 6. CONCLUSION

This article has empirically analysed the primary barriers facing entrepreneurs with disabilities in Bukhara region, Uzbekistan, and developed a scientifically grounded multi-component model for overcoming them. Three principal contributions are made.

First, a five-dimensional classification of barriers was empirically validated for the first time in Bukhara region on the basis of a survey of 120 respondents, with precise percentage indicators documented for each dimension: financial (74.2%), infrastructure (68.3%), information (61.7%), institutional (54.2%), and socio-psychological (49.2%). This classification confirmed its theoretical consistency with Oliver's social model [7] and Sen's capability approach [8].

Second, comparative analysis of five countries systematically identified advanced practice models — Finland's start-up fund, India's microcredit network, Kazakhstan's digital portal, South Korea's procurement quota, and Germany's inclusive franchising — and assessed their feasibility for adaptation to the Uzbekistan context.

Third, a four-component multi-dimensional support model — comprising financial inclusion, infrastructure adaptation, an information and development ecosystem, and social transformation — was proposed and its alignment with the Republic of Uzbekistan's socio-economic development strategy for 2022–2026 and the UN Sustainable Development Goals substantiated. The piloting of this model through a collaborative inclusive entrepreneurship program between Bukhara State University and the Bukhara Regional Administration is advanced as the primary applied recommendation of the study.

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