

# Beyond Survival: De-risking SMEs through “Enterprise Security”

*by*

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Institute of Small Enterprises and Development

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**About 'ISED Monograph Series'**

'ISED Monograph Series' carries titles based on scholarly work held at the Institute. They present results of detailed and systematic studies on particular subjects of thematic interest, emerging from independent studies by scholars, or as a spill-over of a larger research project. While these studies originate from the individual or collective efforts of the various Knowledge Centres of the Institute, they are edited and presented by the ISED small enterprise Observatory, the unique knowledge hub. Such publications, often emerging from extensive research by one or more authors, contribute to a thematic knowledge base. ISED publications seek to provide evidence-base and analysis that matters for policy makers, entrepreneurial people and to the planet.

## Foreword

This monograph introduces “Enterprise Security” (ES) and “Enterprise Vulnerability” (EV), an analytical framework developed by the Institute of Small Enterprises and Development, to shift enterprise risk management toward a comprehensive, security-centric approach.

Rooted in research spanning over a decade, this security-centric approach offers critical insights for businesses and policymakers. Developed by the Institute, the model originated from the multi-State evidence base of the 2013 India MSME Communication Programme (IMCP). The framework has already influenced landmark policies, most notably serving as the foundation for the Punjab Right to Business Act (2020). Findings rely on structured feedback from financial institutions, promotional agencies, the Reserve Bank of India, and NITI Aayog. Published by the ISED, this study aims to contribute fresh perspectives on enterprise risk management for modern financial institutions and stakeholders.

I am sure, this document will help to bring down the rather complex conceptual and analytical framework of “Enterprise Security” to the best understanding of practitioners, especially promotional agencies, bankers and insurance companies. Being a radical departure from research in the area, I hope, the Institute’s effort will stimulate deeper enquiries in the area in future.

I thank the research team of the Institute, and especially, the authors, for their meticulous work, and for the excellent presentation of their findings.

*K. N. Kabra*

Kamal Nayan Kabra  
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May 1, 2026

## Preface

'Enterprise Vulnerability (EV)' and 'Enterprise Security (ES)' are at the heart of the scientific enquiries at the 'ISED Enterprise Security and Resilience Lab', and this platform marks the culmination of the meticulous work of Institute of Small Enterprises and Development in the area since 2013. A testimony to the success of such initiatives, the Indian State of Punjab has come out with its 'Right to Business Act (2020)', largely based on the Institute's recommendations. More of such best practices need to be adopted within the country and globally.

'Enterprise Risk Management' is a topic that is dear to all financial institutions. Developed by ISED, "Enterprise Security" is an analytical framework that shifts the focus of 'enterprise risk' toward a comprehensive, security-centric approach. Developed on the basis of a multi-State national evidence base generated by the Institute under its unique 'India MSME Communication Programme (IMCP)' in 2013, this framework has gained significant traction and acceptability in academic and policy circles today.

This monograph needs to be understood as a continuation of the studies undertaken by the ISED Small Enterprise Observatory, in conceptualizing "enterprise security" as an innovation in the semantics and discourse of enterprise development. It is closely related to larger research initiatives under the IMCP. Official data and evidence were collected from financial institutions and promotional agencies through structured questionnaires and in-depth discussions with top executives of selected institutions.

The support extended by the Reserve Bank of India, various commercial banks, DFIs, the Ministry of MSME, and NITI Aayog is gratefully acknowledged. We would also like to acknowledge the support and encouragement of J.M.I. Sait and Akhil Menon, alongside the dedicated teams of the ISED Knowledge Centers. The technical support of Vishnu Vardhanan, P. Gouri Shankar, and Febin J. Kappen deserves special mention. For graphics and pre-press support, the contributions of Johnny Antony and Shine Job are highly appreciated.

Furthermore, we extend our heartfelt gratitude to all who have helped us, directly or indirectly, in bringing this vision to life. We hope the research and its findings, as carried by this monograph, will contribute significantly to the ongoing debates in this vital subject area.



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# Beyond Survival: De-risking SMEs through “Enterprise Security”

## Abstract

*‘Structural atomism’ remains a defining trait of Small and Medium Enterprises (SMEs), leaving them highly vulnerable to economic volatility. Such fragmentation frequently locks these businesses into a stagnant ‘ratchet effect’ that individual efforts struggle to overcome. The fundamental “atomism” that characterizes them intrinsically exposes individual units to deep structural and functional vulnerabilities. Naturally, these limitations often trap small firms in an economic “ratchet effect”—where they are propelled forward by market momentum; but lacking internal capacity to sustain growth, they, subsequently, fall back or remain permanently stagnant. Navigating away from this persistent ratchet, towards a formalized upward growth path, is the ultimate aspiration shared by enterprises and promotional agencies alike. Interestingly, the attribute of being “small” acts as both a blessing and a boon. Collectively, as individual small entities navigate the market, they often garner amplified media and social attention through mechanisms such as micro-finance, self-help groups, and social capital. At times, this reliance is heavily commodified, creating a social premium for “vulnerability” as a marketable dimension, or even serving as a convenient political narrative. However, such public and political attention is fleeting, offering only momentary relief, rather than a long-term commercial foundation. To survive, individual SMEs must transcend mere survivalist tactics, formulating robust, calculated strategies that operate both within their localized community business networks and in the broader, competitive macro-economy. Recognizing this critical gap, the concept of “Enterprise Security”—an analytical innovation pioneered by the ISED Small Enterprise Observatory—serves as a vital paradigm shift. Moving beyond traditional, subsidy-driven welfare models, this analytical framework evaluates the multiple dimensions of vulnerability—economic, social, and environmental—to provide targeted strategies that release the latent potential of SMEs. By equipping enterprises with strategic foresight, policy advisory, and a structured ecosystem of support, the ISED framework seeks to empower SMEs to become permanent, resilient engines of socio-economic development, shifting them from a permanent state of vulnerability to one of sustainable, self-driven prosperity.*

**Keywords:** Enterprise security; de-risking; SME vulnerability; entrepreneurial atomism; invisibility syndrome; ISED Small Enterprise Observatory.

## 1.0. Background

Small and Medium-sized Enterprises (SMEs) have several market opportunities, as they can leverage agility, personalized service, and niche focus to outmanoeuvre large businesses. However, they are simultaneously constrained by severe resource scarcity, limited economies of scale, and structural disadvantages when competing directly with corporate giants. ‘Being small’ is both an opportunity as well as a structural constraint for them. The constraints of these enterprises outweigh the opportunities, such that they often fail to grab them. A balanced view of the opportunities, on the one hand, and the constraints involved, on the other, is crucial for ensuring the “security” (the concept

evolved by ISED Small Enterprise Observatory) of SMEs in policy and practice. At the ISED, the mix of positive and negative factors relating to the ‘security’ of the enterprise system is analysed and discussed under an innovative framework, “Enterprise Security”. It is a practical and operationally meaningful concept and framework that can be used by all stakeholders, viz., banks, insurance companies, public promotional agencies, who have a direct stake in the subject, as also by analysts and practitioners who spotlight on SMEs as a key engine of sustainable development.

## 2.0. Conceptual Framework

This discussion demands adequate clarity on the

semantics, as a necessary first step. Three concepts are relevant here. 'Enterprise vulnerability' is a well-known feature of SMEs, by the simple reason of their smallness. 'Enterprise risk' is a more generic concept applicable to all types of enterprises, large and small; but relatively speaking, for SMEs, it is more because of their relatively less access to resources and capabilities. 'Vulnerability', on the one hand, and their capabilities in 'risk management', on the other, shapes the state of 'enterprise security'.

### **2.1. Enterprise Vulnerability**

SMEs face distinct vulnerabilities due to "liability of smallness," where limited resources and, in some cases, limited experience create higher risks compared to larger corporations. These vulnerabilities can be categorized into 'structural' and 'operational'.

Structural vulnerabilities are inherent, long-term weaknesses in the organization's setup and strategic foundation. This includes, limited financial resources, high dependency on key personnel, undiversified business model, weak governance structure, inadequate infrastructure, and geographical concentration. Lack of access to capital, weak cash flow, and low credit ratings, make SMEs vulnerable to economic downturns. Over-reliance on one or two individuals (often the owner) for management, sales, and technical knowledge, is a key constraint. Concentration on a narrow product line or a small number of key customers, make them susceptible to market shifts. Informal or non-existent management structures, lack of internal policies (e.g., cybersecurity), and no succession plans, are common features. Lack of investment in modern technology, unpatched legacy systems, and weak physical security, are characteristic features. Being home-based or located in a single site, increasing vulnerability to natural disasters or local crises, are other distinguishing features.

'Operational vulnerabilities' are weaknesses in the daily, ongoing business processes and routines. This includes, weak cybersecurity hygiene, high employee turnover/skill gaps, inefficient cash flow management, supply chain vulnerabilities, regulatory non-compliance, and low security awareness. Lack of two-factor authentication (2FA), weak passwords, no regular data backups, and unpatched software, exacerbates 'insecurity'.

Dependence on unskilled labour or high turnover rates, especially in sectors like tourism, are other characteristics. Poorly managed invoicing and high dependence on credit, leads to liquidity crises, reliance on single suppliers or, conversely, being a weak link in a larger supply chain, difficulty in keeping up with legal and environmental standards (e.g., GDPR) due to lack of specialized staff, high susceptibility to social engineering, phishing, and ransomware attacks among employees.

Accurately diagnosing SME vulnerability is critical for targeted enterprise development. Bridging the gap between raw vulnerability data and actionable, systemic support requires standardized, multi-domain diagnostic frameworks that integrate operational, financial, and market-based vulnerabilities while accommodating the resource constraints of small businesses. The gap in current SME promotion programs and stakeholder capabilities can be systematically resolved by focusing on several core components:

#### **2.1.1. The Core Variables of SME Vulnerability**

The available literature typically evaluates SME vulnerability through an operational matrix composed of three fundamental indicators:

- **Exposure:** The degree to which a business is subjected to external risks (e.g., market volatility, supply chain disruptions, or local extreme weather events).
- **Sensitivity:** How severely the enterprise is impacted by those external exposures.
- **Adaptive Capacity:** The internal resources, capabilities, and financial agility the business has to adjust and recover from systemic shocks.

#### **2.1.2. Barriers to Integrated Action**

Understanding the root causes of failure is difficult for key stakeholders, such as banks, insurance companies, and public promotional agencies, due to several factors:

- **Time & Capability Constraints:** SME owners wear multiple hats and rarely have the specialized analytics capability to conduct deep vulnerability mapping without outside intervention.
- **Fragmented Data:** Financial reporting is often

backward-looking. Without forward-looking diagnostic indices, stakeholders cannot spot early signs of fragility.

- Generalized Policies: Traditional SME promotion schemes rely on “one-size-fits-all” capital injections rather than tailored, risk-adjusted mitigation strategies.

### 2.1.3. Moving Toward a Scientific Framework

To address this problem, enterprise development requires structured, diagnostic mapping systems that analyse structural and operational vulnerabilities.

that make SMEs susceptible to failure. ES is the treatment prescribed for such diagnosis. It is the proactive, multidimensional, and strategic approach to overcoming those limitations. ISED’s ‘Enterprise Security’ framework essentially uses the knowledge of vulnerabilities to develop a proactive, actionable strategy. This strategy extends beyond just financial management to include, non-financial, social and environmental factors, ensuring long-term survival. The Reserve Bank of India has highlighted the vital role of “non-financial factors” in credit planning and delivery from time to time, though in practice, the element of credit risk has gained a



### 3.0. Business Risks & Risk Management

‘Enterprise risk’ or ‘business risk’ is a central area of policy and practice in enterprise development. Risk management in business, essentially, involves a systematic, proactive process of identifying, assessing, and mitigating threats or uncertainties that could negatively impact on capital, earnings, or operational continuity. ‘Enterprise Vulnerability (EV)’ and ‘Enterprise Security (ES)’ are distinct, complementary concepts. EV identifies the risks (liability of smallness), while ES acts as the strategic framework to manage those risks and build resilience. EV, as the diagnosis, describes the inherent, structural, and operational limitations

disproportionately high emphasis, especially in the Indian context.

Risk management strategies in SME development are essential for survival and long-term growth, as these enterprises are often disproportionately vulnerable to operational, financial, and external shocks due to limited resources. Effective risk management involves a proactive, structured approach—moving away from reliance on intuition towards formalizing procedures. Key strategies include, collective efficiency boosting & strategic collaboration, digitalization & technology adoption, financial risk management & resilience, organizational agility & cultural shift, and functional upgrading.

Techniques by the banks in risk management is limited largely to financial risks; there is an increasing need for addressing non-financial risks. There is a dominant element of 'complementarity-deficit' in the planning and delivery of enterprise risk management today.

This creates a vicious cycle of a high-risk perception by lenders, coupled with a high-vulnerability among borrowers. While financial institutions (banks) have matured in their internal risk assessments, SMEs often lack similar sophistication in managing non-financial risks. Risk management in Indian SMEs is often treated as a compliance exercise. Taken as a strategic tool, financial management (often limited to cash flow), needs to be supported by measures to address operational, supply chain, regulatory, and strategic risks.

Banks use advanced risk analytics, credit scoring, and early warning systems to manage their lending risk. Many Indian SMEs, often with no dedicated risk teams, operate with high informality, and with inadequate documentation. This asymmetry causes banks to impose high collateral requirements and high-interest rates (as they fear non-financial operational failures). This, further chokes the SME's resources for investing in risk-mitigating technology, leading to more vulnerability.

Many Indian MSMEs are concentrated in small hubs (e.g., Surat for textiles, Rajkot for engineering) and often rely on a single large customer (anchor unit). A disruption in that one unit, or market shifts (like sudden import changes), leaves them without a backup plan, leading to massive operational failures. Despite available low-cost cloud tools, many SMEs do not track inventory, sales, or regulatory compliance digitally, resulting in data loss and high operational risks. Besides, since many of them lack in professional management, risks are exacerbated when founders leave or pass away. Because SMEs often manage their operational risks inadequately, they are prone to sudden liquidity crises. As a result, banks face high NPA rates, leading them to a more conservative mind-set, and ultimately, perpetuating the "credit gap" even for functional SMEs.

Risk management in SMEs is broadly classified into two categories: external and internal risks. External risks originate outside the business and are largely uncontrollable (e.g., economic downturns, sudden regulatory changes, or natural disasters). Internal

risks stem from within the organization and can be directly managed (e.g., employee errors, cash flow mismanagement, or equipment failure). Effective risk management for SMEs requires a dual strategy: monitoring uncontrollable external variables through contingency planning, while proactively optimizing internal operations and governance.

'External risks' are factors entirely outside the company's control, requiring businesses to build resilience and contingency plans: This includes, Economic: factors, such as Market fluctuations, inflation, or recessions that impact consumer spending. Regulatory risks, such as new laws, tax policy changes, or industry compliance mandates, environmental & geopolitical factors such as, natural disasters, pandemics, or global conflicts disrupting supply chains, and competitive factors like, new market entrants or disruptive technologies that threaten your market share.

'Internal risks' are vulnerabilities created by the company's own processes, systems, or people: Operational factors such as supply chain bottlenecks, equipment failures, or day-to-day process inefficiencies. Financial factors such as poor cash flow management, excessive debt, or inadequate capital reserves, are well known. Besides, there exist human capital related factors, like high employee turnover, lack of skilled talent, or leadership changes, and technological & security issues, like data breaches, system outages, or failure to update outdated software.

### **3.1. How SME Risk Differ?**

For SMEs, internal risks are generally more critical and relevant than external risks. While external threats impact the entire market, SMEs face immediate operational or financial failure usually due to internal vulnerabilities. Internal risks are critical for SMEs, due to three reasons: survival threat, controllability, and resource constraints. SMEs typically operate with tight cash flows and lack the financial buffers required to survive internal mis-steps like poor capital allocation or delayed payments. Unlike natural disasters or macroeconomic inflation, operational and financial bottlenecks are directly manageable and preventable within the organization. Single points of failure, such as losing key personnel, relying on un-backed IT systems, or suffering internal fraud, often spell sudden disaster for small teams.

The points of difference relate to three areas: scale and agility, resource allocation, and risk tolerance. Large corporations rely on vast financial reserves, market dominance, and broad insurance policies to absorb external economic shocks or supply chain disruptions. Corporations have dedicated enterprise risk teams, whereas SMEs rely solely on their owners or core managers for all risk assessments. Large companies can absorb failed investments or technological experiments; SMEs have razor-thin margins and operate with much lower risk thresholds.

Because resources are limited, SMEs should build resilience using targeted approaches, such as, financial controls, diversification guidelines, and by strictly optimizing working capital and maintaining cash flow visibility. Protect against external market shifts by broadening the firm’s customer base, diversifying suppliers, and expanding service/product lines, are important. Business continuity and risk assessment frameworks from agencies like the Risk Management Association, would be required to establish practical contingency plans.

### **3.2. De-risking: Meaning & Purpose**

De-risking SMEs means helping SMEs protect themselves against external risks, such as, financial, operational, and cybersecurity threats. It involves identifying vulnerabilities—such as supply chain disruptions, data breaches, or market volatility—and putting strategies in place to prevent severe losses, ensuring the business can survive and grow. This practice is crucial because SMEs are the backbone of the economy, but they often lack the massive safety nets of larger corporations. By de-risking, these businesses safeguard their cash flow, protect sensitive customer data, and build resilience against unexpected crises, making them much more attractive to investors, banks, and partners.

De-risking MSMEs through an “Enterprise Security” framework, an innovation from the Institute of Small Enterprises and Development (ISED) is highly viable and practically implementable. Rather than just protecting digital assets, this broader paradigm unifies physical, financial, operational, and cyber security. It serves as a strong, standardized strategy to build trust, attract investment, and protect supply chain integrity.

## **4.0. Need for a New Analytical Framework**

The discussion, as above, indicates the need for a strong alternative analytical framework, with which the problem and its possible solutions have to be examined. The Institute of Small Enterprises and Development (ISED), through the work of the ISED Small Enterprise Observatory, has successfully elevated the concept of “enterprise security” from a purely micro-level, operational concern into an integrated macro-level concept with profound policy implications. Here is an analysis of why this elevation is significant.

### **4.1. “Enterprise Security” as a Macro Concept**

Traditionally, ‘enterprise security’ refers to protecting a business’s internal assets, data, and infrastructure from threats (a micro view). ISED has re-conceptualized this as an extended form of ‘livelihood security’. By analysing the high vulnerability of MSMEs to external shocks (such as pandemics, climate change, and economic disruptions), ISED argues that enterprise security is essential for local, regional, and national economic stability. When countless small businesses face “insecurity,” it impacts employment levels, supply chains, and GDP, turning a firm-level issue into a national economic concern. This “insecurity multiplier” influences the market sentiments in a significant manner, but often remains latent. The inability to capture such a “sentiments effect” can drag the economy into recessionary conditions, especially in a regional setting.

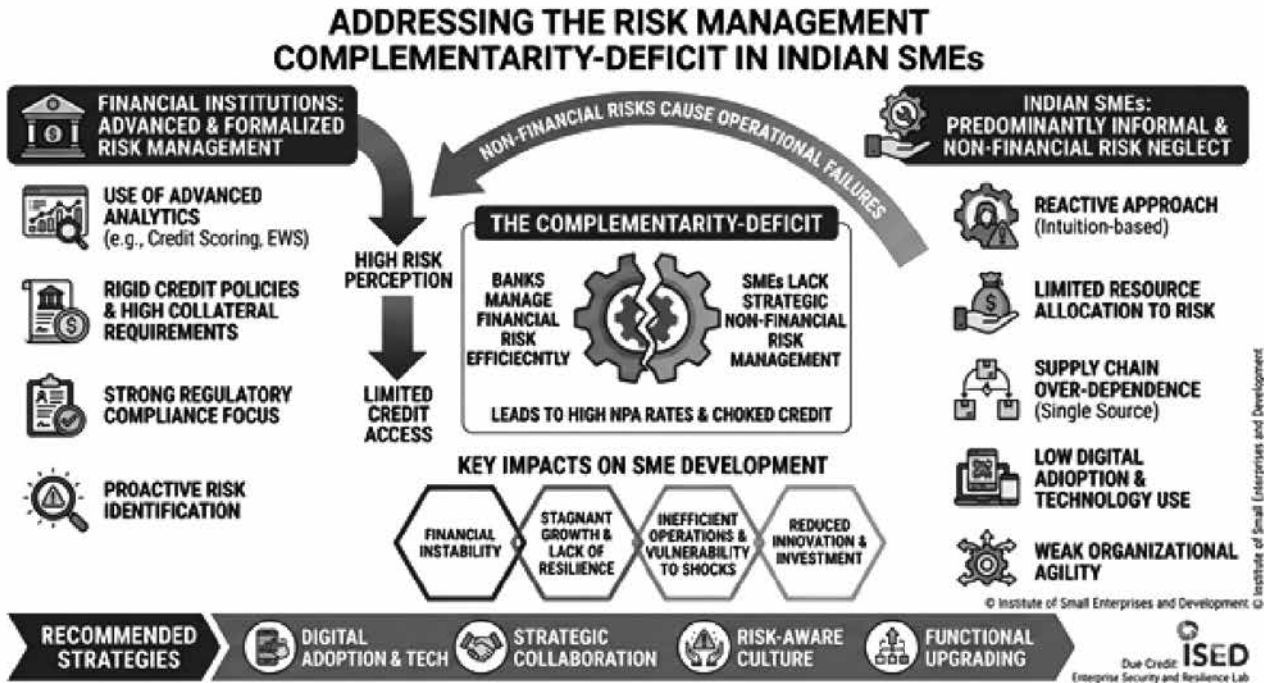
Methodologies like the ‘multi-layer diagnostic model’, help translate dispersed crisis signals into a unified resilience score. By breaking down the exact drivers of vulnerability across operational systems, financial health, and workforce dependencies, one can 1) pin-point exact enterprise-level stress points; 2) transition from reactive crisis management to proactive, preventative support; and 3) allocate limited resources to the specific areas where an SME is most sensitive to external shocks.

Regional bodies like the State Industrial Development Corporations, and the State Commissionerates of Industrial Development can evaluate SME health and structural fragility by reviewing the tools and techniques developed under the ‘Enterprise Security’ framework.

## 4.2. Relevance for Business Strategy

Structured mapping systems empower stakeholders to optimize performance by revealing hidden

tailored ex-ante risk advisory services to commercial clients, which in turn reduces claims frequency and bolsters operational stability.



vulnerabilities and interdependencies within complex business ecosystems, translating raw data into actionable risk-mitigation, cost-reduction, and compliance strategies for sustainable enterprise development. As such, it helps various stakeholders in a practical sense.

### 4.2.1. Benefits to Banks

Diagnostic mapping enables financial institutions to move beyond lagging indicators by using predictive, data-backed models to assess enterprise health. In day-to-day operations, banks utilize these analytical frameworks to evaluate structural credit risk, forecast probability of default, and avoid defaults through targeted early-intervention. This shifts loan monitoring from reactive recovery to proactive risk management.

### 4.2.2. Benefits to Insurance Companies

In the insurance sector, diagnostic systems facilitate a thorough analysis of risk concentration across enterprise networks. Insurers leverage this visibility to accurately price policies, minimize exposure to cascading supply chain disruptions, and offer

### 4.2.3. Benefits to Public Promotional Agencies

For public agencies tasked with fostering small business growth, diagnostic mapping provides the granular data required to identify operational bottlenecks and skill or technology gaps. With this visibility, agencies like the National Small Industries Corporation (NSIC) can design hyper-targeted support programs, optimize credit facilitation schemes, and ensure government procurement resources reach the most viable enterprises.

### 4.2.4. Benefits to the Corporate Sector

Large corporations use vendor ecosystem maps to untangle multi-tier dependency risks, such as geographic concentration or hidden single-source bottlenecks. Day-to-day, these maps streamline procurement, reduce landed costs by up to 22%, accelerate cycle times by up to 40%, and allow enterprises to collaborate seamlessly with suppliers to pre-empt material shortages before they halt production.

## 5.0. ISED Analytical Framework

The ISED Small Enterprise Observatory proposes

an analytical framework centered on reducing structural and operational vulnerability for MSMEs. Moving beyond traditional cybersecurity to a holistic livelihood-based approach, it integrates the “triple-bottom-line principles” (economic, social, and environmental) across the stages of start-up, running, and growth, to measure and enhance ‘security’. The framework was based on data available from 5000 stakeholder respondents, who formed part of the ‘India MSME Darshn’, under the India MSME Communication Programme(IMCP).

The ISED framework focuses on transforming conceptual understanding into operational realities through these key steps:

- **Multidimensional Approach:** Enterprise security is treated as an extension of “livelihood security,” covering various vulnerabilities (financial, operational, market).
- **Triple Bottom Line Integration:** The framework evaluates security across economic, social, and environmental dimensions.
- **Stage-Specific Analysis:** Security threats are analysed based on the lifecycle of the enterprise—Startup, Running, and Growth stages.
- **Operational Measurements:** The framework moves beyond theory to define indicators for field studies, aiding in measuring the relative position of one business unit against another.

For implementing this framework, ISED outlines a Four-Step Operationalization Strategy:

1. **Conceptualization:** Placing it at the centre of a new, alternative analytical framework.
2. **Conceptual Clarity:** Establishing linkages between ‘enterprise security’ and other related analytical concepts (e.g., resilience, sustainability).
3. **Field Evidence:** Moving from theory to practice, by gathering field evidence to bridge the gap between concepts and operational reality.
4. **Forward-Looking Indicators:** Providing actionable insights for the future.

This framework was pioneered in 2013 and has been further refined to address vulnerabilities in India’s

MSME sector, particularly in the post-pandemic context.

### **5.1. Operational Plan**

The “Pentagon Initiative” in the context of ISED refers to a specific macroeconomic policy proposal introduced by the Institute of Small Enterprises and Development (ISED) in India. It is a strategic, five-pronged policy framework designed to build “enterprise security” and resilience for MSMEs.

#### **The Five Pillars (The Pentagon)**

To support MSMEs during economic challenges, the ISED’s Pentagon Initiative advocates for structural changes based on five key components:

1. **Security of Finance:** Ensuring steady, unhindered credit flow and capital access to protect small businesses from sudden liquidity crunches.
2. **Security of Market:** Implementing structural measures to help MSMEs sustain demand, compete with larger corporations, and avoid being crowded out.
3. **Security of Technology:** Facilitating the digital transformation of small enterprises to keep them competitive in a rapidly evolving market.
4. **Security of Raw Materials:** Securing a consistent and affordable supply chain for materials, shielding vulnerable businesses from global supply shocks.
5. **Security of Social Safety Nets:** Providing safety nets for entrepreneurs and the workforce (e.g., insurance and social protection) to absorb systemic risks.

The initiative addresses the historical “invisibility syndrome” of the small enterprise economy, bringing structured, proactive policy interventions rather than ad-hoc government responses. It operates under the belief that strengthening the foundation of small and local businesses is crucial for broad economic development, particularly in developing economies like India.

### **5.2. Tools and Techniques**

Based on the specified pillars and the “Inclusive Entrepreneurship Development Model” used at ISED, an ‘SME Assessment Spider Diagram Model’

is proposed. This Model (also known as a radar chart, web chart, or polar chart) is a visual, multi-dimensional tool used to evaluate the performance, maturity, or capabilities of a SME across several key areas. It displays data on multiple axes extending from a central point, making it easy to identify strengths and weaknesses at a glance

This model uses a 1–10 scoring system across the three core pillars identified.

### **1. Human Capital (Internal Capabilities)**

- Skills & Competencies: Technical proficiency and management skills of the workforce.
- Education & Training: Frequency and impact of structured competency development.
- Employee Motivation: Levels of engagement and both monetary/non-monetary incentives.
- Entrepreneurial Leadership: The ability of the founder/manager to innovate and adapt.

### **2. Economic Capital (Financial & Market Strength)**

- Capital Structure: Balance of debt, equity, and access to trade credit or bank loans.
- Financial Capability: Profitability (ROA), cash flow stability, and risk-adjusted returns.
- Market Share & Growth: Relative sales performance and competitive positioning.
- Investment Readiness: The firm's ability to attract external support or technical investments.

### **3. Institutional Capacity (Infrastructure & Governance)**

- Collective Efficiency: The firm's ability to leverage clusters and institutional partnerships.
- Legal & Policy Compliance: Alignment with MSME regulations and government schemes.
- Operational Infrastructure: Strength of physical and digital infrastructures within the firm.
- Sustainability Practices: Integration of "Triple Bottom-line" principles (social, environmental, financial) into daily operations.

In essence, ISED has transformed "enterprise security" from a private business objective into a public policy imperative for ensuring the long-term health of the enterprise ecosystem.

## **6.0. 'Enterprise Security' and Demography Analysis**

A "sandbox to impact" approach for SME health and sustainability management provides a safe, controlled environment where SMEs can test and validate sustainable practices or health technologies before deploying them at scale, limiting failure risks while accelerating adoption. This approach typically involves four key stages—conceptualization, operation, evaluation, and scaling—to transition SMEs from simply being aware of sustainability to producing measurable, positive impacts on their business performance and the environment. The framework transforms sustainability initiatives from "culture by accident" to "culture by design," using a structured, iterative process.

## **7.0. Strategic Relevance & Policy Implications**

The Institute of Small Enterprises and Development (ISED) has significantly shifted the discourse on 'risk management' from a micro-level concern to a macro-level policy framework. While traditionally viewed as a firm-level issue—often limited to internal risk management or cybersecurity—ISED's work, has redefined it as a vital component of sustainable economic development.

This elevation into a macro concept is driven by several factors:

- Holistic Framework: ISED has expanded the concept beyond simple risk management to include economic, social, and environmental dimensions. It frames 'enterprise security' as an extension of "livelihood security," positioning it as a pillar of the broader "triple bottom line" of sustainable development.
- Addressing Structural Vulnerability: By using an inductive method rooted in field evidence, the ISED has shown that the vulnerabilities of MSMEs are not just isolated failures, but systemic risks that affect national economic stability.
- Policy Implications: This macro-level approach has turned enterprise security into a framework with strong public policy implications. It moves the conversation from providing generic

“subsidies” to building a robust “enterprise security system” that protects the MSME sector from external shocks, such as global economic shifts or pandemics.

ISED’s alternative analytical framework informs policy at the macro level, in three crucial dimensions:

1. **Entrepreneurship as a National Resource:** ISED argues that entrepreneurship should be recognized as a critical national resource, not just as private business ventures.
2. **Auditing and Governance:** The work calls for a national “auditing system for entrepreneurship”, and governance reforms that put enterprise security at the centre of government schemes and programs.
3. **Integrated Vulnerability Framework:** ISED has developed an integrated approach that factors in various vulnerabilities (economic, social, and environmental) into a single model.

## 9.0. Core Focus Areas for SME Sustainability

The ‘Enterprise Security’ framework contributes to the global agenda of SME sustainability in the following ways:

- **Environmental Management:** Implementing energy efficiency measures, waste reduction, and water quality management.
- **Social & Employee Health:** Focusing on the “S” in ESG, including employee wellness programs, safety improvements, and promoting a positive corporate culture.
- **Capacity Building:** Providing non-financial support, such as training and workshops, to fill gaps in knowledge and skill sets.

By implementing this structured, “sandbox to impact” model, SMEs can effectively navigate the complexities of sustainable development while simultaneously fostering innovation and enhancing competitiveness.

**The key benefits of the approach are:**

- **Reduced Risk:** Allows experimentation with

new technologies and business models without risking the stability of the enterprise.

- **Cost-Effectiveness:** Helps SMEs test and validate, reducing the cost of failure and avoiding expensive, ineffective investments in sustainability.
- **Access to Finance & Markets:** Demonstrates compliance with ESG (Environmental, Social, and Governance) criteria, helping SMEs access green finance, new markets, and talent.
- **Enhanced Innovation:** Encourages the adoption of digital tools, such as AI-based systems for waste reduction or telemedicine for health management.

The ISED Small Enterprise Observatory’s work, particularly following the COVID-19 pandemic, has gained recognition from policymakers and financial institutions:

- **RBI Recognition:** Dr. K.C.Chakrabarty, Deputy Governor of the Reserve Bank of India (RBI) has noted that ISED’s research offers a balanced perspective on the socio-economic, cultural, and political context of SMEs, highlighting its value to serious policymakers.
- **Policy Focus:** The ISED’s focus on the “Triple Bottom Line” (economic, social, and environmental) helps link the security of individual firms to sustainable development goals.

## 10.0. Conclusion

Institute of Small Enterprises and Development (ISED) has redefined ‘enterprise security’ as a foundational pillar of the broader macroeconomic ecosystem. By reframing this concept as an extension of basic livelihood security, the Institute bridges the critical gap between daily, firm-level survival and overarching national industrial stability. As the economy navigates both hyper-competitive and increasingly volatile global markets, fostering secure, resilient micro and small enterprises ensures not only localized entrepreneurial success but also a robust, shock-resistant national economy.

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## Testimony by Doyens...



"This report has good understanding of the difficult socio-economic, cultural and political context of the SMEs. Having a balanced and nuanced perspective, it offers very useful analytical tool and typologies; naturally, it leads to some well-founded policy conclusions and suggestions for the way forward. All serious policy makers should read and inwardly digest them"

**George B Assaf, Former UNIDO representative to the United Nations; spokesperson of the UNIDO, and of the Director General, UNIDO.**

"The initiative of the ISED Small Enterprise Observatory is commendable, It immensely helps the Ministry of MSME to shape its policies, as also to review such policies from time to time..."

**"Madhav Lal, Secretary, Ministry of MSME, Government of India.**



"Creation of NPA accounts, by itself, are not a sin. Informed decision making and handholding are critical in ensuring MSME health...., The rich work of Institute of Small Enterprises and Development in this regard is commendable".

**S.S. Mundra, Former Deputy Governor, Reserve Bank of India**

Micro finance has to grow beyond its conventional borders. Enterprises having job creation potential outside the limited family circuit have to come up in large numbers. In this context, the rich work at the Institute of Small Enterprises and Development as also the ISED Small Enterprise Observatory are commendable.

**Malcolm Harper, Professor Emeritus, Cranfield University, UK**



"This is a well researched document ..... It does a wonderful job of identifying the business opportunities at the "bottom of the pyramid". The excellent global analysis of SME issues offer much lessons to other developing countries in the Commonwealth block and elsewhere".

**Jose Maurel, Director, Commonwealth Secretariat, London**

### About ISED Research Monograph Series

A research monograph is a scientific publication that reviews and discusses a particular scientific topic in terms of its analytical and policy dimensions. The purpose of the 'ISED Research Monograph Series' is to present views and/or findings relating to some aspects of ongoing or completed research at the Institute of Small Enterprises and Development. Besides initiating debates in a particular subject area, it is expected to play an important role in disseminating the work of the Institute among the wider community. The Series often represents the work that has been carried out at the various Knowledge Centres of the Institute.

### About Institute of Small Enterprises & Development (ISED)

Institute of Small Enterprises & Development (ISED) is an interdisciplinary Centre with 'Enterprise & Entrepreneurship' (E&E) as its forte. Besides its think-tank role, the Institute engages itself in strategy development, action projects, and advisory services to governments and international organizations. Established in 1988, it has several recognitions and accolades to its credit. Besides its participation in several expert committees of the Government of India and the Reserve Bank of India, the Institute's pioneering contributions to the E&E constituency have been duly honored with the Oshikawa International Award (Asian Productivity Organization, Tokyo), and the 'Global Leader in Small Business Promotion' Award (Institute of International Education, New York).



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