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Beyond Formalization: Policy Adaptive Capacity of Women-Owned Household and Micro Businesses in Emerging Economies

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Abstract

Women-owned household and micro businesses operate at the boundary between household livelihoods, informal work, and registered enterprise. Policy transitions in taxation, accounting, digital reporting, and platform commerce can expand market access but also impose fixed learning and compliance costs. This integrative structured narrative review examines how these businesses adapt to policy and regulatory change and which individual, business, institutional, gendered, digital, and spatial factors shape adaptive capacity. Searches covered peer-reviewed and authoritative sources published mainly from 2015 to September 2026, with seminal earlier theory retained and source records verified. The evidence shows that formalization is heterogeneous and often partial. Awareness alone is insufficient; adaptation depends on policy interpretation, financial slack, recordkeeping, managerial routines, digital capability, networks, institutional trust, and continuity under shocks. Gender norms and unpaid care constrain time, mobility, collateral, and network access, while digitalization can reduce transaction costs yet increase platform dependence, fraud exposure, and reporting burdens. The review conceptualizes policy adaptive capacity as a layered dynamic capability connecting policy access with regulatory, financial, managerial, digital, market, and resilience capacities. Policies should combine clear communication with sequenced compliance support, finance, digital safeguards, care-sensitive delivery, and place-based resilience measures.

Subject Areas

Business Finance and Investment, Business Management

Keywords

Women's Entrepreneurship, Household Business, Microenterprise,

Formalization, Adaptive Capacity

1. Introduction

Household businesses, own-account activities and microenterprises account for a large share of production and employment in emerging and developing economies, but they do not form a single legal or economic category. Some are registered with local authorities yet outside company law; others comply with tax rules but not labour or social-protection requirements; many alternate between visible and concealed transactions. Informality is therefore better treated as multidimensional and graded than as a binary firm characteristic [1]-[5]. This matters for women because they are disproportionately represented in small, home-based and low-capital activities whose commercial and domestic boundaries are porous. A definition that equates entrepreneurship with incorporated growth firms misses much of their economic activity and obscures the regulatory transitions they actually face [4] [6]-[10].

The contemporary policy environment is changing that boundary. Governments are simplifying registration, replacing presumptive taxation with declared revenue, expanding electronic invoicing, linking platforms to tax administration and promoting digital payments. These reforms may reduce discretion and open access to contracts, finance and public support. They may also convert previously tacit practices into data-intensive obligations requiring devices, connectivity, records, authentication and recurring interaction with public agencies. A small firm experiences this transition not as a single rule but as a bundle of information, fixed investments, recurrent tasks and perceived risks. The same reform can be enabling for an expansion-oriented firm and threatening for a subsistence activity with volatile revenue [11]-[24].

Formalization evidence is correspondingly mixed. Registration reforms and information alone often generate small responses, while inspections, targeted assistance or substantial incentives produce larger changes. Even when registration rises, average effects on revenue or profit are not assured. Experiments in Sri Lanka and Benin found limited average private returns; Vietnam panel studies report gains concentrated among larger or better-prepared household businesses, alongside higher visibility, administrative time or informal payments [11]-[24]. The relevant question is thus not whether formalization is intrinsically beneficial, but which firms can convert a policy change into routines and market advantages that exceed its costs.

Gender changes that calculation through mechanisms rather than through an undifferentiated female disadvantage. Women-owned firms are often smaller and sectorally concentrated; owners may have less collateral, narrower business networks, weaker bargaining power over household resources, and a larger unpaid-care load. These conditions reduce the time and slack required to attend training,

learn a tax portal, reorganize accounts or wait for uncertain benefits. Yet evidence is heterogeneous: Vietnamese studies do not uniformly find disadvantage in formal credit, and networks sometimes offset constraints. A gender-responsive review must therefore examine the interaction of gender with firm size, sector, household organization, institutions and place [6]-[10] [25]-[40].

Digitalization and climate exposure further complicate policy adaptation. Digital payments, platforms and e-government can make compliance and market access mutually reinforcing, but adoption depends on skills, device control, trust, cyber safety and the ability to translate online presence into revenue [41]-[45]. Climate hazards and other shocks compete for the same cash buffers, attention and networks needed for regulatory upgrading. For a coastal microbusiness, a new accounting obligation may arrive during supply disruption, salinity-related livelihood change or a costly recovery period. Treating resilience as a separate outcome therefore understates its role as an input to adaptation [46]-[51].

This review asks: How do women-owned household and micro businesses adapt to changes in the policy and regulatory environment, and what factors shape their adaptive capacity? It makes three contributions. First, it clarifies adjacent concepts that are frequently conflated. Second, it connects theory to observable mechanisms without presenting policy adaptive capacity as an established stand-alone theory. Third, it develops an integrated framework that positions Vietnam and the Mekong Delta as an informative policy setting within a broader emerging-economy literature.

2. Data and Methodology

This study is an integrative structured narrative review. It was not registered prospectively and did not use a complete subscription-database export, double screening or a PRISMA flow; it is therefore not presented as a systematic review. The purpose was theoretical integration across literatures that use different units of analysis and vocabularies, while retaining a transparent and auditable search trail.

Searches were conducted between August and 23 September 2026. Discovery used Google Scholar-accessible records, publisher platforms, Crossref-linked DOI metadata, PubMed for disaster and resilience literature, authoritative organizational websites, official Vietnamese legal portals, and backward and forward citation searching. The exact source-specific strings and auditable record counts are reported in **Table S1**. Searches were iterative rather than a single database export; therefore, the count refers to the deduplicated verified corpus considered for synthesis, not to every result displayed by each interface.

The principal publication window was 2015-2026. Earlier works were eligible when they originated a theoretical construct, defined a persistent policy problem, or provided a rigorous experiment still central to the evidence. Eligible empirical studies examined micro, small, household or informal businesses, preferably with sex-disaggregated or women-focused results, in low- and middle-income or tran-

sition settings. Reviews were included when methods and scope were identifiable. Institutional reports were used for definitions, comparable statistics, policy design and context, not as substitutes for causal evidence. Opinion pieces, commercial blogs and sources whose existence could not be verified were excluded.

For each included record, the extraction fields were citation, country, design, population, business type, construct, theory, principal finding, relevance and DOI or stable URL. Evidence was coded into policy awareness; compliance and formalization; financial, managerial, digital, market and network capability; institutional environment; gender constraints; climate vulnerability; resilience; and support interventions. The evidence matrix was completed before interpretive synthesis. Because outcome definitions and designs were too heterogeneous for meta-analysis, synthesis followed an overall-evidence, heterogeneity, mechanism, context and implication sequence. Cross-sectional associations are reported as associations; stronger causal language is reserved for randomized, quasi-experimental or credible panel evidence.

Citation verification proceeded in two stages. Bibliographic details were checked against a DOI landing page, publisher record, PubMed entry, or the issuing organization. DOI strings were retained only when they resolved to the cited title in an accessible record; policy instruments were checked on official Vietnamese government or Official Gazette portals for number, issuer, date and current effect. The final audit removed duplicates, uncited references and claims extending beyond the source. The resulting corpus is purposive rather than exhaustive, and coverage is strongest for formalization, finance, training and post-shock digitalization; it is thinner for policy literacy, household businesses specifically, and gendered climate-business interactions.

The deduplicated corpus comprised 75 unique verified records considered for synthesis: 58 DOI-bearing sources and 17 authoritative non-DOI organizational or policy records. Forty records with the closest empirical or conceptual fit were entered in the detailed evidence matrix; the remainder supplied definitions, foundational theory, policy context or corroborating synthesis. Selection stopped when additional searching repeated established mechanisms without adding a distinct population, design or contextual explanation. Because the original iterative search did not retain complete source-level exports, raw hit and exclusion counts cannot be reconstructed and are not presented as PRISMA-style screening totals.

Quality was appraised by design and fit-for-claim rather than a single score. Randomized and quasi-experimental studies carried greatest weight for intervention or causal statements; panels and administrative data informed temporal patterns and heterogeneity; cross-sectional studies supported associations; qualitative work clarified mechanisms and meanings; and reviews established field-level convergence and gaps. A large sample did not compensate for a mismatched population. Evidence from registered SMEs was therefore used cautiously when the argument concerned household or informal microbusinesses (See **Table 1**).

Table 1. Definitions and conceptual boundaries.

Concept	Working definition	Boundary for this review	Key references
Household business	An individual- or family-owned legal/organizational form, often without separation of household and business assets.	Not synonymous with informality or micro size; report registration and tax status separately.	[18]-[24] [52]
Microenterprise	An enterprise below a jurisdiction-specific employment, turnover or asset threshold.	A size category; may be formal or informal and household- or company-owned.	[1]-[3]
Informal enterprise	A market-oriented production unit incompletely covered by registration, tax, labour, social-protection or accounting rules.	Multidimensional and graded rather than a single binary state.	[1]-[5]
Women-owned business	A business in which a woman holds ownership and decisive managerial responsibility.	Legal title, operational control and control over returns should be distinguished.	[6]-[10] [53]-[55]
Formalization	Movement toward compliance across one or more legal and administrative dimensions.	A process or bundle of behaviours, not a single registration event.	[4] [5] [11]-[24]
Policy adaptation	Adjustment of decisions, resources, routines or business model in response to policy change.	May include compliance, sequencing, outsourcing, partial formality, scaling or suspension.	This review
Policy adaptive capacity	Ability to acquire and interpret policy information, mobilize resources, reconfigure practices and sustain an appropriate response.	Capacity is distinct from awareness, behaviour and business outcome.	[25]-[29] [46]-[50]
Regulatory compliance	Conformity with a specific legal obligation.	Must be assessed against the applicable rule, period and threshold.	[11]-[24] [52] [56]-[61]
Business resilience	Capacity to anticipate, absorb, adapt and recover while maintaining core functions.	Both an input to policy adaptation and a potential outcome.	[46]-[50]

3. Conceptual Foundations

3.1. Household Businesses Microenterprises and Informality

Household business describes an ownership and organizational form: the business is owned or operated by an individual or household, often with family labour and without legal separation between household and business assets. Microenterprise is a size category, usually defined by employment, turnover or assets; thresholds vary by jurisdiction. Informal enterprise refers to incomplete coverage by registration, taxation, labour, social-protection or accounting rules. The categories overlap but are not interchangeable. A registered household business may remain informal in bookkeeping or employment, while an unincorporated microenterprise may satisfy tax obligations. For cross-country comparison, the most defensible approach is to report the legal form, size, registration and compliance dimensions separately [1]-[3] [16]-[24].

Women-owned business also requires precision. Ownership thresholds used by governments and financial institutions vary, and legal title does not always imply strategic control. This review uses women-owned when a woman holds ownership

and decisive managerial responsibility; women-led is retained only when that is the source's definition. In household enterprises, decision authority over revenue, investment and compliance should be measured directly because nominal ownership may coexist with household control by others [6]-[10] [53]-[55].

3.2. Policy Adaptation and Regulatory Compliance

Policy adaptation is the process by which a business notices a policy change, interprets its relevance, decides whether and how to respond, reallocates resources and embeds a response in routines. Regulatory compliance is narrower: conformity with a specified obligation, such as registration, filing, invoicing or record retention. Policy adaptive capacity is defined here as the ability to acquire and interpret policy information, mobilize resources, reconfigure business practices and sustain an appropriate response while maintaining viable operations. It is a capacity, not the response itself and not proof of business growth.

This distinction prevents three common errors. Awareness is not compliance; registration is not complete formalization; and observed compliance may reflect enforcement rather than internal capability. Adaptation may include lawful strategic choices such as selecting among permitted legal forms, remaining below a threshold through genuine business scaling, outsourcing accounting, sequencing optional upgrading, changing products or suspending operations. Such discretion does not extend to concealing revenue, failing to issue a legally required invoice or delaying a mandatory tax filing. Evaluation should therefore distinguish discretionary formalization decisions from compliance with binding duties, and should measure understanding, intention, behaviour, implementation quality and outcomes separately.

3.3. Formalization as an Adaptation Process

Formalization is rarely a one-time migration from an informal to a formal state. Firms may obtain a licence, tax identifier, bank account and electronic invoice capability at different times. The net-benefit logic is useful but incomplete. Direct fees, taxes, equipment and professional services combine with learning time, disclosure risk and recurrent administrative work. Benefits such as contracts, finance, legal protection or larger customers are conditional on market structure and institutional credibility. Experiments show that lowering registration costs alone often changes little; enforcement or packages that make benefits tangible have larger effects, although business performance gains remain uneven [11]-[17].

Vietnam illustrates this heterogeneity. Panel evidence links registration to higher value added for stronger household businesses, while later studies identify investment, digital adoption and e-government channels alongside red tape and visibility costs [16]-[24]. These findings support a threshold interpretation: formalization is more likely to pay when a business already has sufficient scale, records, demand and managerial bandwidth. For precarious firms, partial formalization can be a stable adaptation rather than a temporary failure.

3.4. Absorptive Capacity

Absorptive capacity explains how external knowledge becomes usable practice. Cohen and Levinthal define the capacity to recognize, assimilate and apply valuable external information; Zahra and George distinguish potential capacity, involving acquisition and assimilation, from realized capacity, involving transformation and exploitation [25] [26]. Applied to policy, prior accounting knowledge, digital literacy and experience with public agencies shape whether a proprietor can recognize relevance and translate a rule into procedures. Intermediaries, peer networks and repeated practice can compensate for limited prior knowledge. Expected relationship: greater absorptive capacity should strengthen the transition from policy exposure to accurate understanding and from understanding to implemented routines. The theory does not, by itself, explain gendered access to time or why formal rules lack legitimacy.

3.5. Institutional Environment

Institutional theory locates behaviour within formal rules, enforcement, norms and shared expectations [27]-[29]. Regulatory clarity, procedural simplicity, public-service quality and consistent enforcement reduce uncertainty; corruption, discretionary inspections and conflicting guidance raise anticipated costs. Informal institutions shape legitimacy: registration may signal professionalism in one market yet invite suspicion or family resistance in another. For women, childcare provision, property rights and gender norms interact with business regulation rather than operating as separate background variables [31]-[34]. Expected relationship: supportive and credible institutions increase perceived net benefits and convert compliance into access to services and markets; hostile or unpredictable institutions promote avoidance, partial compliance or reliance on brokers.

3.6. Gendered Entrepreneurship

The 5M framework extends markets, money and management with motherhood and the meso-macro environment [6]. Its value is architectural: it forces analysis of household organization and institutional context. Moser's gender planning work adds productive, reproductive and community roles and the distinction between practical needs and strategic interests [7]. Kabeer's resources-agency-achievements formulation helps separate access to an input from control over its use [8]. These frameworks should not be mechanically stacked. Combined carefully, they identify mechanisms: care reduces discretionary time; unequal asset rights limit collateral; sector norms constrain markets; and household bargaining affects whether business revenue can fund compliance. Expected relationship: gendered constraints weaken resource conversion at several stages, while agency, collective organization and gender-responsive services can moderate those effects.

3.7. Vulnerability and Resilience

Resilience is the capacity to anticipate, absorb, adapt and recover while maintaining core functions; vulnerability reflects exposure, sensitivity and constrained

adaptive capacity [46]-[50]. For microbusinesses, household and enterprise buffers are often the same. A flood, illness or price shock reduces cash, time and attention, potentially interrupting tax filing or digital investment. Conversely, records, diversified channels, savings and networks can support both regulatory adaptation and shock recovery. Expected relationship: resilience capability improves implementation continuity, but severe or repeated shocks can divert resources and make otherwise feasible compliance investments unaffordable.

3.8. Integrated Theoretical Synthesis

No single framework explains the full process. Absorptive capacity specifies the information-to-routine mechanism. Institutional theory explains incentives, legitimacy and implementation quality. Gender frameworks explain unequal access to and control over conversion resources. Resilience theory explains how exposure and buffers alter the feasible set under shocks. The integrated model therefore treats policy adaptive capacity as a middle-range construct with six dimensions: regulatory and compliance, financial, managerial and accounting, digital, market and network, and resilience capability. Policy access, awareness and understanding are antecedent conditions that create readiness to adapt; they are not dimensions of policy adaptive capacity itself. Adaptation behaviours mediate the relationship between the six capabilities and outcomes, while institutions, gender, networks, digital conditions and spatial-climate vulnerability condition each transition.

Policy implementation scholarship adds a necessary relational element. Frontline officials and service providers interpret rules, allocate attention and exercise discretion; regulated actors respond to those encounters as well as to the written instrument. Discretion can make a rule workable for heterogeneous firms, but inconsistent explanations or sanctions can also undermine trust and create location-specific burdens [62]. In this review, implementation quality is therefore positioned within the institutional layer rather than treated as an additional business capability. The business can learn and prepare, but it cannot independently correct contradictory guidance or fragmented administration.

The integrated theory also distinguishes capacity from willingness. An owner may be capable of compliance yet reasonably postpone discretionary registration or upgrading when buyers do not value formal status, benefits are uncertain or implementation is viewed as arbitrary. This reasoning does not make legally required tax, filing or invoicing obligations optional. Conversely, strong enforcement can produce nominal compliance without understanding or embedded routines. Empirical models should include perceived response efficacy, expected net benefits and institutional trust alongside capability, while coding mandatory compliance separately from voluntary formalization choices (See **Table 2**).

4. Determinants of Policy Adaptive Capacity

4.1. Policy Awareness Information Access and Policy Literacy

The evidence base directly measuring policy literacy among women-owned

Table 2. Theoretical frameworks and their contribution to understanding policy adaptation.

Theory or framework	Core construct	Mechanism	Application	Key references
Policy implementation	Frontline interpretation, discretion and service delivery	Implementation encounters affect clarity, burden, trust and usable support.	Explains why the same national rule produces different local adaptation conditions.	[62]
Absorptive capacity	Acquisition, assimilation, transformation, exploitation	Prior knowledge and learning routines convert policy information into practice.	Explains why identical communication produces different understanding and implementation.	[25] [26]
Institutional theory	Formal rules, enforcement, norms, legitimacy	Predictability and credible benefits shape compliance; informal norms shape legitimacy.	Connects national rules with local implementation, trust and gender norms.	[27]-[34]
5M gender-aware framework	Markets, money, management, motherhood, meso-macro environment	Household and institutional contexts condition access to conventional venture resources.	Provides an organizing architecture, not a causal model by itself.	[6]
Moser gender planning	Productive, reproductive and community roles; practical and strategic needs	Unpaid roles constrain time and reveal why nominally neutral support is unequally usable.	Guides analysis of care-compatible and transformative policy design.	[7]
Resources agency achievements	Resources, ability to define and act on goals, realized outcomes	Access is not equivalent to control or conversion.	Separates receiving finance or tools from using them for business adaptation.	[8]
Vulnerability and resilience	Exposure, sensitivity, adaptive capacity, recovery	Shocks deplete or activate the buffers used for compliance and upgrading.	Integrates climate and spatial context without assuming direct effects.	[46]-[50]
Integrated policy adaptive capacity	Six conversion capabilities between understanding and behaviour	Resources and context jointly determine whether policy knowledge becomes sustained routines.	Middle-range synthesis proposed for measurement and testing.	This review

microbusinesses is limited. Studies more often use knowledge of tax law, perceived procedures, information channels or training participation. Across formalization experiments, information-only interventions generally have modest effects, indicating that awareness removes one barrier but does not resolve recurrent costs or uncertain benefits [12]-[15]. Vietnam evidence similarly associates knowledge of law and market information with registration, yet unclear rules and fear of taxes remain salient [17]-[20].

Policy literacy should therefore be operationalized as more than recall. It includes recognizing that a rule applies, interpreting thresholds and deadlines, judging source credibility, knowing where to seek help and translating requirements into actions. Trusted intermediaries can reduce interpretation costs, particularly when communication is delivered in local language, at convenient times and through channels already used by women. However, intermediary dependence may also

create unequal fees or misinformation. Future studies should measure objective knowledge alongside confidence and actual task performance.

4.2. Financial Resources and Compliance Costs

Finance affects adaptation through liquidity, risk bearing and investment. Registration fees may be small relative to the cost of devices, software, bookkeeping, transport and time away from sales. Credit evidence is heterogeneous. Cross-country studies find disadvantage after accounting for selection in some contexts, while Vietnamese manufacturing data show no formal-credit penalty and, in some specifications, better terms for women; informal-credit evidence in Vietnam is less favourable [35]-[39]. This heterogeneity cautions against treating gender as a universal coefficient.

Formal finance can fund capability investment, but credit alone does not ensure productive use. Experiments with grants, microcredit and training show mixed average returns for subsistence women-owned firms; household claims, sector saturation and weak demand can dissipate capital. Community finance and savings groups may be more accessible and provide social support, yet loan sizes and maturities may be insufficient for upgrading [40] [51] [63]-[65]. The mechanism most relevant to policy adaptation is financial slack: the capacity to absorb a fixed compliance expense or temporary revenue loss without compromising household consumption. Measures should include cash buffers, debt service, control over funds and insurance, not merely whether a loan was obtained.

4.3. Managerial Accounting and Administrative Capacity

Record keeping, stock control, marketing and financial planning are strongly associated with survival and productivity in micro and small firms across developing countries [66]. They also create the information base required for declared-revenue taxation, electronic invoicing and loan applications. Yet general training produces variable results. Women-focused training in Vietnam improved knowledge and practices more reliably than profits; market-level training in Kenya improved longer-run outcomes, and personal-initiative training in Togo outperformed conventional curricula [51] [63] [67] [68].

The implication is not that mindset substitutes for accounting. Effective support connects motivation with repeated, task-specific routines. For a household business, separating household and business cash, recording daily sales and reconciling digital payments are foundational compliance capabilities. Adoption is more likely when tools fit transaction volume, examples match the sector and coaching follows training. Cross-sectional links between management practices and performance remain vulnerable to selection, but experimental evidence supports the proposition that appropriately designed capability interventions can change behaviour.

4.4. Digital Capability and Digital Transformation

Digital capability includes access, operational skills, data practices, cyber safety

and the ability to integrate tools into workflows. Pandemic-era SME studies associate digital adoption with continuity through remote sales, payments and customer communication [44] [45]. Research on women entrepreneurs shows that online platforms and diaspora or peer networks can widen markets, while also documenting constraints related to affordability, infrastructure, skills, norms and platform dependence [41]-[43]. Evidence on fraud, harassment and data risk is less developed in this corpus; these mechanisms should therefore be treated as plausible risks rather than attributed to an unidentified review.

Digitalization can mediate policy adaptation in two directions. E-government, digital identity and electronic invoices can reduce travel and standardize transactions; transaction data may improve credit assessment. At the same time, digital compliance adds password management, connectivity, hardware and data-retention obligations. Platform taxation can formalize transactions without making the business fully formal. Digital adoption should therefore be measured by depth and workflow integration, not by a binary social-media-use item [42]-[45]. Evidence remains mostly cross-sectional, and claims that digitalization causes resilience should be reserved for stronger designs.

4.5. Market Access Networks and Social Capital

Market incentives determine whether the benefits of formality are credible. Firms that sell to companies, government or regulated chains are more likely to need invoices and standards; local cash markets may offer few rewards for disclosure. Networks transmit policy information, referrals, finance and practical help. In Vietnam, social ties with officials and other business owners are associated with credit access, while regional collective-action norms appear particularly relevant for women-run firms [32] [36] [37]. Ugandan evidence shows that networks can also create obligations to provide resources, so social capital is not uniformly beneficial [35].

Network quality matters more than simple membership. Bridging ties to accountants, banks, platforms and value-chain buyers may improve adaptation, whereas dense bonding networks can reinforce informal norms. Women's associations and cooperatives can lower search costs and aggregate demand for training or software. The expected relationship is partly mediated: networks improve information, finance and market opportunity, which then make capability investment worthwhile.

4.6. Institutional Environment and Support Ecosystem

The institutional environment determines both regulatory pressure and usable support. Clear thresholds, interoperable systems, predictable inspections and grievance mechanisms reduce uncertainty. Local discretion can humanize implementation, but it can also generate uneven treatment. Evidence from formalization experiments suggests that packages combining simplified procedures with assistance and credible enforcement outperform information alone [12]-[15]. Vi-

etnam studies show that governance quality moderates formalization and performance, while red tape and unofficial costs can persist after registration [19]-[24] [32].

Support ecosystems work when responsibilities are coordinated. Tax authorities, local registration offices, banks, women's organizations, business associations and technology providers often offer separate programmes with different eligibility rules. For microbusinesses, navigation itself is a capability burden. A single trusted referral pathway, interoperable records and triage by business readiness can reduce this burden. Evidence for any one delivery model remains limited, so recommendations should be evaluated rather than assumed effective.

4.7. Gender Norms Unpaid Care and Time Poverty

Unpaid care affects policy adaptation through time, mobility, fatigue and control over schedules. ILO evidence shows that self-employed and informal workers are often excluded from care protections [69] [70]. Qualitative and survey studies describe negotiation, social support and purchased help as coping strategies, with feasibility varying by income and business stage [71] [72]. These sources do not constitute a field experiment; causal evidence that relieving care constraints improves business or compliance outcomes remains limited.

Care constraints interact with programme design. Training scheduled during trading or caregiving hours selects the least constrained participants; digital delivery may improve flexibility but can shift learning into already crowded evenings. Gender-responsive support therefore requires time-sensitive delivery, childcare or care referrals, safe mobility, household engagement where appropriate, and attention to women's control over business income. These are mechanisms for equal conversion of support, not ancillary welfare benefits [69]-[73].

4.8. Spatial and Climate Vulnerability

Small-business adaptation to natural hazards is shaped by perceived risk, prior experience, costs, skills, business size and sector; evidence on owner gender is inconsistent [47]. Microenterprise resilience models emphasize cognitive preparation, learning and social capital [46]. Reviews of floods and disaster-prone SMEs identify limited integration of informality and gender, while the IPCC situates adaptive capacity within broader exposure and vulnerability [48]-[50]. Climate vulnerability should therefore not be assigned a direct causal effect on compliance without linked business-level data.

The plausible mechanism is resource competition and disruption. Hazards damage premises and stocks, interrupt transport, alter demand and absorb savings. They can also accelerate diversification and digital channels. Place moderates the value of a policy response: electronic invoicing is harder under unreliable power or connectivity; formal credit is less useful when collateral is exposed and insurance unavailable. Spatial-climate measures should include hazard exposure, supply-chain dependence, infrastructure reliability and recovery capacity, linked to

business data rather than inferred from province averages alone.

4.9. Dynamic Interactions and Capability Traps

The determinants reinforce one another. Weak records reduce loan eligibility; limited finance delays device or software purchase; shallow digital use prevents transaction data from improving records; narrow markets reduce the return to invoices; and care pressure reduces time for all four investments. This produces a capability trap in which each isolated intervention has a low return. The converse is a cumulative pathway: a simple record creates visibility over cash flow, supports a small working-capital facility, enables reliable digital payment reconciliation and makes a larger buyer feasible. The framework therefore predicts complementarities, but current studies rarely identify them causally.

Sequencing support should follow the binding constraint rather than a universal curriculum. Information is logically first but may not be operationally decisive. A proprietor who understands an invoice rule yet lacks a compatible device needs setup assistance; one with the device but no daily records needs accounting routines; one capable of compliance but facing no market reward may need buyer linkage. Sequencing refers to support and discretionary capability investment, not to postponing a statutory filing or invoice deadline. Diagnostic tools should identify the point of interruption and re-assess it after support. Such an approach also reduces the risk that the most capable businesses repeatedly capture generic programmes.

Agency remains important within constraint. Women owners are not passive recipients of policy: they combine household and business resources, negotiate care, use community finance, build online markets and choose partial formality. The ILO's recent women's entrepreneurship strategy for the care economy similarly frames care as both a constraint and a field of enterprise opportunity [74]. Research and policy should document these strategies without romanticizing coping that depends on longer unpaid hours or transfers risk to other women (See Table 3).

Table 3. Determinants of policy adaptive capacity.

Domain	Specific factor	Expected mechanism	Evidence	Context or moderator	Key references
Policy information	Objective knowledge; source trust; task literacy	Reduces interpretation error and identifies applicable obligations.	Information-only interventions often yield modest formalization.	Complexity; language; intermediary quality	[12]-[20]
Financial	Liquidity; buffers; credit; control over funds	Finances fixed/recurrent costs and protects consumption during transition.	Mixed by country, finance type and firm segment.	Sector; household claims; collateral; demand	[35]-[40] [51] [63]-[65]
Managerial	Records; planning; stock and cash control	Creates data and routines for filing, invoicing and finance.	Strong associations; intervention effects depend on design.	Prior knowledge; coaching; business stage	[51] [63] [66]-[68]

Continued

Digital	Access; skills; integration; cyber safety	Enables e-government, invoices, payments and wider markets.	Supports continuity but can add risks and dependence.	Connectivity; device control; platform rules	[41]-[45]
Market and network	Buyer requirements; bridging ties; associations	Raises returns to compliance and transmits resources and know-how.	Networks can be assets or obligations.	Tie quality; sector; local norms	[32] [35]-[40]
Institutional	Clarity; service quality; enforcement; trust	Changes expected costs, benefits and legitimacy of compliance.	Packages outperform information alone; local quality matters.	Administrative discretion; corruption	[12]-[24] [27]-[34]
Gender and care	Unpaid work; mobility; bargaining; asset control	Restricts time and conversion of resources; tailored support can buffer effects.	Qualitative and survey evidence; causal evidence remains limited.	Income; household composition; social norms	[6]-[10] [69]-[73] [75]
Spatial and climate	Hazard exposure; infrastructure; logistics	Disrupts operations and competes for buffers; may induce diversification.	Direct gendered compliance evidence remains limited.	Coastal/inland; urban/rural; sector	[46]-[50]
Business characteristics	Size; age; formality; sector; growth orientation	Shapes thresholds, expected returns and baseline capability.	Formalization gains concentrate among stronger firms.	Market demand; policy threshold	[11]-[24]

5. From Policy Exposure to Business Adaptation

The synthesized process is sequential but not linear. Policy exposure occurs through official notices, media, peers, buyers, platforms or enforcement encounters. Access becomes useful only when the owner can determine relevance and trust the source. Understanding then informs a strategic response: comply with a binding duty; seek help; choose among lawful registration or business-form options; sequence optional investments; alter transactions; or exit. Delay is a lawful choice only where the rule permits it. The response reflects legal obligation, perceived net benefits, household priorities and enforcement expectations.

Implementation requires standardization. The proprietor must gather identity and business documents, separate records, create routines, acquire tools and coordinate with agencies or providers. Capability investment may precede formalization, but formalization may also trigger investment by making invoices, accounts or bank services necessary. Adaptation behaviours are therefore bundles rather than a single outcome: registration, declared revenue, bookkeeping, digital payment, electronic invoicing, standards and market upgrading can proceed at different speeds.

Five breakpoints recur. First, information can fail to reach or be understood by the intended business. Second, the owner may understand the rule but perceive costs as exceeding benefits. Third, intent may not translate into action because cash, time or documentation is missing. Fourth, initial compliance may not be-

come routine if software, connectivity or advisory support fails. Fifth, formalization may not yield market or financial returns, weakening continued compliance. Shocks can interrupt every stage. Outcomes feed back: successful market access builds resources and learning; disappointing returns reinforce avoidance. This feedback explains persistent partial formality without assuming irrationality.

6. Integrated Conceptual Framework

Figure 1 represents policy adaptive capacity as the conversion mechanism between policy understanding and business behaviour. The policy environment supplies rules, incentives, enforcement and support. Policy access and understanding are antecedent conditions that create readiness to adapt; they are located outside the adaptive-capacity construct. The six dimensions of policy adaptive capacity convert that readiness into implemented behaviours: regulatory and compliance capability; financial capability; managerial and accounting capability; digital capability; market and network capability; and resilience capability.

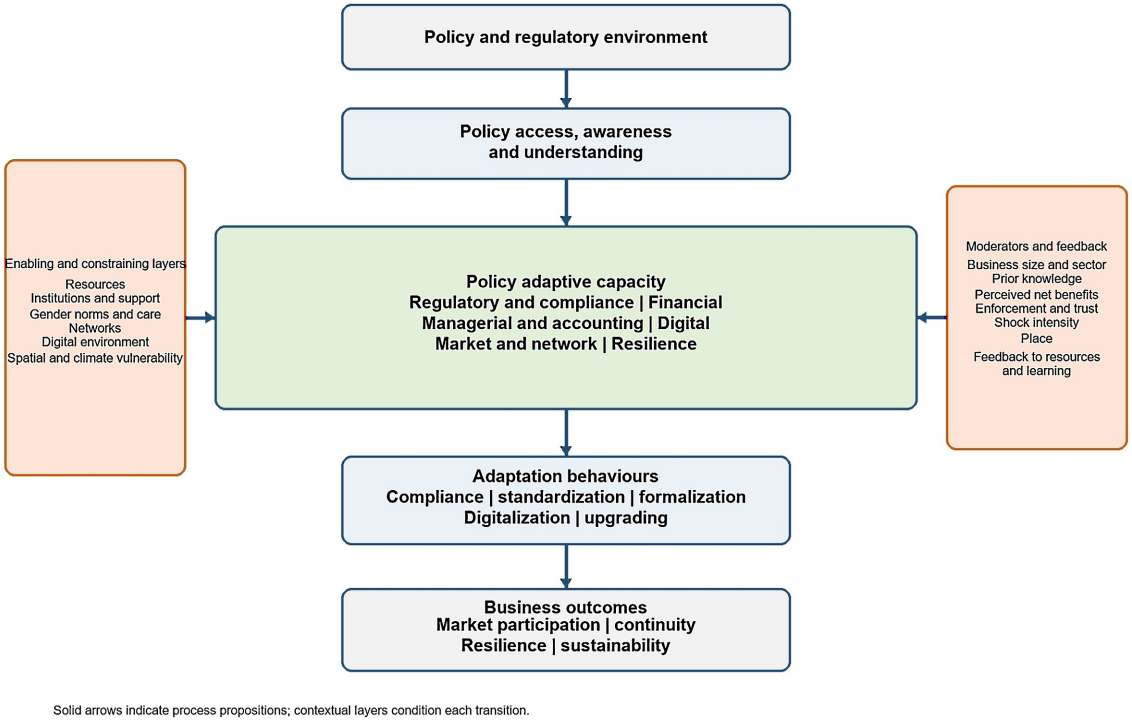


Figure 1. Integrated conceptual framework of policy adaptive capacity among women-owned household and micro businesses.

Note. Policy access and understanding are antecedents that create readiness to adapt, not components of policy adaptive capacity. Six capability dimensions convert this readiness into adaptation behaviours and differentiated outcomes. Resources, institutions, gender, networks, the digital environment and spatial-climate vulnerability condition each transition. Solid arrows indicate process propositions rather than established causal effects.

The model makes conditional propositions rather than causal claims. Policy understanding is expected to predict adaptation more strongly when resources and institutional support are adequate. Managerial and digital capability may mediate the relationship between understanding and compliance quality. Perceived net benefits and institutional trust should moderate the transition from intention to formalization. Gender norms and care burden condition available time, mobility and control over resources. Networks can mediate access to information, finance and markets, but their effects depend on tie quality. Climate exposure and shock intensity moderate the ability to sustain routines. Business size, sector and prior knowledge are cross-cutting moderators.

Outcomes include compliance, formalization, digitalization, upgrading, market participation, resilience and sustainability. These outcomes should not be collapsed into one success index. A business can comply without growing, digitize without formalizing, or become resilient by remaining small and diversified. Longitudinal testing should estimate transitions and feedback rather than a single cross-sectional path.

Operationalization can follow a second-order measurement model, but dimensional scores should remain visible. Regulatory capability may be measured through scenario-based knowledge and correct completion of a filing task; financial capability through liquidity coverage and control over funds; managerial capability through observed records and reconciliation; digital capability through independent task completion and safety practice; market-network capability through buyer diversity and bridging ties; and resilience through continuity planning, redundancy and recovery time. A single aggregate score is defensible only after reliability, factor structure and predictive validity are demonstrated.

The framework also separates mediators from moderators by temporal position. Capability investment and adaptation behaviour are plausible mediators because policy exposure can change them. Business sector, baseline size, care responsibility and hazard exposure are usually moderators because they pre-exist the focal change, although each can also change over longer periods. Institutional support may operate as both: availability moderates access, while actual use mediates outcomes. Panel measurement is required to resolve these roles; a one-wave structural equation model cannot establish the proposed sequence.

7. Vietnam and the Mekong Delta as an Illustrative Policy Context

Vietnam's household-business regime makes the distinction between registration and full enterprise formalization especially visible. Recent policy change combines encouragement with new administrative demands. Resolution 68-NQ/TW of 4 May 2025 set a private-sector development agenda that included simplified accounting, free shared digital and accounting tools, support for small and household businesses, and removal of presumptive taxation no later than 2026 [52]. National Assembly Resolution 198/2025/QH15, effective on adoption on 17 May

2025, translated parts of that agenda into special mechanisms, including digital and financial support and an explicit legal definition of household business [56].

The operative tax framework continued to evolve after the instruments emphasized in the original research proposal. Decree 70/2025/ND-CP and Circular 32/2025/TT-BTC, effective 1 June 2025, expanded electronic-invoice rules [57] [58]. Decree 68/2026/ND-CP, issued and effective 5 March 2026, established tax and tax-administration rules for household and individual businesses [59]. Decree 141/2026/ND-CP of 29 April 2026, effective from 1 January 2026, amended that decree and raised the non-taxable annual revenue threshold from VND 500 million to VND 1 billion; businesses above VND 1 billion must use tax-authority-coded or cash-register-generated electronic invoices connected to the tax authority [60]. Circular 18/2026/TT-BTC specifies tax-administration files and procedures for household and individual businesses [61]. Because the 2026 amendment changes the threshold described in earlier guidance, current analysis must read the instruments together rather than cite the 2025 rule in isolation.

This transition maps directly onto the framework. Awareness involves knowing which threshold and invoice rule applies. Regulatory capability includes registration, filing and documentary accuracy. Financial and managerial capabilities determine whether the owner can maintain records and pay for services. Digital capability is both a compliance requirement and a route to market. Institutional support determines whether free tools and advice become usable at the point of need. Evidence from Vietnam suggests that formalization benefits are concentrated and mediated by scale, digital adoption, finance and governance, while some firms experience added red tape or visibility costs [16]-[24].

Gender-specific evidence remains thinner for household businesses than for registered SMEs. ADB, IFC and World Bank studies identify finance, skills, networks, social norms and care as constraints for women-owned firms, but definitions often exclude unregistered or subsistence activities [54] [55] [75]. Vietnam credit results are also mixed, demonstrating the need to test mechanisms rather than import a generalized finance-gap assumption [36] [37]. Women-owned household-business research should record legal ownership, operational control, household bargaining and unpaid labour separately.

The Mekong Delta adds a multiple-shock setting. The World Bank estimates that climate impacts cost Vietnam about US$10 billion in 2020 and identifies the Delta as a priority for coordinated resilience investment [53]. Salinity, flooding, erosion, heat and transport disruption can affect stocks, premises, agriculture-linked demand and logistics. Yet direct evidence linking these exposures to women-owned household-business compliance is scarce. The Delta should therefore be used as a theory-testing context: do exposure and recovery costs weaken the conversion of policy knowledge into sustained compliance, and do savings, digital channels, networks or place-based support buffer that relationship? Comparisons between Can Tho and coastal Ca Mau, and between urban, rural, coastal and inland locations, can test rather than presume these interactions.

Two additional cautions are important for interpreting this policy setting. First, tax thresholds can induce lawful changes in scale, timing or organizational form, but these must be distinguished from revenue concealment, artificial business splitting or failure to issue a required invoice. The former are discretionary adaptations; the latter may constitute non-compliance and should not be interpreted as capability gains. Second, a household business may be tax-compliant while remaining outside enterprise law, labour protection or professional accounting. Evaluation should therefore report each legal and compliance status separately rather than label all taxpayers fully formal.

For women owners, digitized tax administration may reduce travel and face-to-face discretion, yet it can increase dependence on a household member, accountant or vendor who controls credentials and data. Surveys should ask who performs the digital task, who holds the device and password, and who can authorize payment. Apparent adoption by the business should not be assumed to represent the owner's independent capability.

8. Research Gaps

The evidence matrix supports several bounded gaps. Household businesses are frequently absorbed into broad SME samples, even though legal status, household-business boundaries and record quality differ. Women-owned household businesses are less visible than women-owned registered SMEs, and ownership is often measured without control. Longitudinal and administrative-data studies are rare outside formalization and survival research. No widely validated multidimensional scale of policy adaptive capacity was identified.

Policy awareness is usually treated as a control variable rather than a construct with objective knowledge, source trust and task performance. The interaction of gender, informality and digitalization is studied more often through adoption intention than through compliance quality or sustained business outcomes. Resilience studies seldom link climate exposure to regulatory transition, and gender-disaggregated evidence is limited. Multiple shocks are discussed conceptually but rarely modeled with repeated observations. Mekong Delta studies directly focused on women-owned household businesses, policy adaptation and climate exposure remain scarce. Finally, intervention research tends to evaluate finance or training separately, leaving little evidence on integrated, sequenced support (See **Table 4**).

9. Research Agenda

Construct development should begin with qualitative cognitive interviews among women-owned household businesses, implementers and service providers. Items should distinguish policy access, objective understanding, perceived self-efficacy and six capability dimensions. Content validity should precede exploratory and confirmatory factor analysis; measurement invariance should be tested across business tiers, sectors, provinces and care-burden groups. Predictive validity should use observed behaviours such as correct invoices, filing timeliness and

Table 4. Evidence gaps and future research agenda.

Evidence gap	What the review found	Testable research response
Construct validity	No validated multidimensional policy adaptive capacity scale identified.	Develop items through cognitive interviews; test reliability, invariance and predictive validity.
Population coverage	Household businesses and women-owned informal firms are underrepresented relative to SMEs.	Use explicit legal-form and informality measures; oversample unregistered and home-based firms.
Temporal evidence	Cross-sectional designs dominate many gender and digital studies.	Panel firms across policy deadlines; use event studies and administrative linkage.
Causal mechanisms	Awareness, capability and outcomes are often collapsed.	Test mediation from understanding through capability to observed behaviours.
Intersectionality	Gender × informality × digitalization is rarely estimated directly.	Use moderated mediation and measurement invariance by care burden and firm tier.
Multiple shocks	Regulatory change and climate/economic shocks are usually studied separately.	Model time-varying exposure, buffers and recovery with repeated measures.
Spatial evidence	Mekong Delta-specific evidence on women-owned household businesses is scarce.	Compare inland/coastal and urban/rural strata in Can Tho and Ca Mau.
Interventions	Finance, information and training are commonly evaluated in isolation.	Run factorial or adaptive trials of sequenced, care-compatible support packages.
Heterogeneity	Average effects obscure capability configurations.	Apply latent class/profile analysis and report distributional treatment effects.

record quality rather than self-reported readiness alone.

Longitudinal designs should follow firms before, during and after regulatory deadlines. Administrative tax or invoice data can be linked, with consent and safeguards, to surveys on gender, household organization, digital skills and climate exposure. Difference-in-differences, event studies or regression discontinuity around revenue thresholds may strengthen causal inference where assumptions are defensible. Multilevel models should separate owner, business, commune, province and policy-implementation effects.

The integrated framework generates testable mediation and moderation questions. Does policy literacy influence compliance through managerial and digital capability? Does institutional support weaken the effect of care burden on implementation? Do bridging networks moderate credit or market returns to formalization? Does climate exposure reduce sustained compliance through cash-flow volatility, and is that pathway buffered by savings, insurance or diversified sales channels? Latent class or profile analysis could identify subsistence, transitioning and expansion-ready capability configurations without assuming a single ladder.

For the Mekong Delta, a stratified Can Tho-Ca Mau design can compare urban-rural and inland-coastal settings while avoiding claims of regional representativeness from two localities. Oversampling businesses near the VND 1 billion threshold would illuminate tax and invoice adaptation. Intervention studies should compare information alone with sequenced packages: diagnostic triage, sector-specific records, guided digital setup, finance linked to an investment plan, and

care-compatible coaching. Outcomes should include burden, errors, market gains, resilience and discontinuation, with distributional effects reported by business tier.

10. Policy and Practice Implications

Policy simplification should reduce the number of decisions and repeated data entries required of small businesses. Plain-language threshold tools, interoperable registration and tax records, proportionate record requirements and predictable correction procedures are consistent with the evidence. Simplification should be evaluated through completion time, error rates and sustained compliance, not portal launch alone.

Policy communication should be segmented by business tier and delivered through trusted local channels. Messages need to state who is affected, when, what records are required, what support is available and what happens after registration. Information campaigns without guided task completion are unlikely to overcome liquidity or capability constraints.

Financial support should target the investment induced by transition: devices, connectivity, accounting setup, working capital and temporary revenue disruption. Credit screening should not rely solely on formal collateral, but finance should be paired with cash-flow and record support. Digital assistance should emphasize workflow integration, data security, fraud response and exit options from platforms, not only social-media promotion.

Business-development services should use diagnostics and follow-up coaching. A subsistence trader may need a simple daily record and assisted filing; an expansion-ready firm may need inventory, invoicing, standards and buyer connections. Gender-responsive support should treat care, mobility, safety, asset control and household bargaining as conversion conditions. Scheduling, childcare arrangements, mobile support and women's collective organizations can improve effective access.

Place-based and climate-resilient support should coordinate compliance with continuity planning. In hazard-prone areas, backup records, redundant payment channels, emergency liquidity, supplier diversification and rapid administrative relief can protect both survival and compliance. These recommendations are evidence-aligned but not yet fully proven as a package; phased pilots with predefined outcomes are preferable to immediate universal rollout.

11. Conclusions

Women-owned household and micro businesses adapt to policy change through selective, staged and sometimes reversible adjustments. We know that awareness alone rarely produces durable compliance; the decisive issue is whether owners can convert information into affordable routines and credible market benefits. Financial slack, accounting practices, digital integration, networks, institutional quality, gendered time constraints and resilience jointly shape that conversion.

Formalization can improve performance, particularly for better-prepared firms, but average effects are heterogeneous and visibility costs can rise.

What remains uncertain is how these mechanisms interact over time, especially for unregistered household businesses, under multiple shocks and in climate-vulnerable places. The conceptual contribution of this review is a policy adaptive capacity framework that separates policy access from six conversion capabilities and from subsequent behaviours and outcomes. Future research should validate this construct, test mediated and moderated pathways with longitudinal and multilevel data, and evaluate sequenced support. Vietnam's current tax and digital transition, examined across differentiated Mekong Delta locations, provides a timely setting for that programme of research.

Author Contributions

Conceptualization, methodology, investigation, data curation, writing—original draft preparation, writing—review and editing, visualization, and project administration: Trang Phung Thi Quynh. The author has read and agreed to the published version of the manuscript.

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Conflicts of Interest

The author declares no conflicts of interest.

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Appendix

Table S1. Discovery-source search strings and records considered.

Discovery source	Search string or retrieval procedure	Records considered
Google Scholar and publisher platforms	("women entrepreneur*" OR "women-owned business*" OR "female entrepreneur*") AND ("microenterprise*" OR "micro business*" OR "household business*" OR "informal business*" OR "informal enterprise*") AND ("policy adaptation" OR "regulatory compliance" OR formalization OR formalisation OR taxation OR "policy implementation"). Separate searches replaced the final block with digitalization/digital transformation; financial inclusion/access to finance; gender barriers/unpaid care; institutional environment; business resilience; climate vulnerability/resilience; policy literacy/information access; and informal-to-formal transition.	Candidates contributing to the 75-record deduplicated corpus; source-specific raw hits were not retained.
Crossref and DOI landing pages	Candidate title, author, year and DOI combinations were queried to verify bibliographic identity and DOI-title correspondence.	58 DOI-bearing records verified.
PubMed	((women OR female OR gender) AND (entrepreneur* OR "small business" OR microenterprise*)) AND (resilien* OR disaster* OR climate* OR vulnerability) AND (2015:2026[dp]).	No unique retained record beyond the DOI/publisher corpus; overlapping hits were not double counted.
ILO, World Bank, IFC, ADB, OECD and IPCC	Site-specific combinations of (women OR gender) AND (microenterprise OR informal OR household business) with formalization, finance, digitalization, care, resilience or climate; organization and report-title searches were then used for verification.	17 non-DOI organizational and policy records verified across authoritative sites.
Vietnamese government and Official Gazette portals	Exact instrument-number searches and combinations of "hộ kinh doanh" with "thuế", "hóa đơn điện tử", "kế toán" and "chính thức hóa"; issuer, date, effect and direct record were checked.	Included within the same 17 non-DOI records; overlaps were not double counted.
Backward and forward citation searching	Reference lists and cited-by records were followed from reviews and foundational works on women and formalization, women's entrepreneurship, microenterprise training and small-business resilience [4] [10] [30] [43] [51].	Contributed to the 75 unique records; a separate overlap count was not retained.