

Paper Summary

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Title: Policy Helix and Antecedents of Cybersecurity Policymaking Agility

Authors: Masoud Afshari-Mofrad, Babak Abedin, Alireza Amrollahi

DOI: Not provided

Year: 2023

Publication Type: Conference Paper

Discipline/Domain: Information Systems / Cybersecurity Policy

Subdomain/Topic: Cybersecurity policymaking agility; dynamic policy cycles; organisational resilience

Eligibility: Eligible

Overall Relevance Score: 88

Operationalization Score: 90

Contains Definition of Actionability: Yes (implicitly—actionability as agility in policymaking)

Contains Systematic Features/Dimensions: Yes

Contains Explainability: Partial

Contains Interpretability: No

Contains Framework/Model: Yes (Cybersecurity Policy Helix)

Operationalization Present: Yes

Primary Methodology: Qualitative (semi-structured expert interviews)

Study Context: Cybersecurity policymaking in dynamic threat environments

Geographic/Institutional Context: Australia; Macquarie University; multi-sector expert sample

Target Users/Stakeholders: Policymakers, CISOs, cybersecurity managers, organisational boards

Primary Contribution Type: Conceptual framework + empirical antecedents

CL: Yes

CR: Yes

FE: Yes

TI: Yes

EX: Partial

GA: Yes

Reason if Not Eligible: N/A

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Policy Helix and Antecedents of Cybersecurity Policymaking Agility

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****Discipline/Domain:****

Information Systems / Cybersecurity Policy

****Subdomain/Topic:****

Agility in cybersecurity policymaking; policy-cycle adaptation; cyber resilience

****Contextual Background:****

Addresses the need for agile cybersecurity policymaking (CSPM) in dynamic cyber threat environments,

****Geographic/Institutional Context:****

Macquarie University, Australia; expert interview participants from multiple sectors (ICT, finance, telecom)

****Target Users/Stakeholders:****

Policymakers, CISOs, CIOs, CTOs, cybersecurity managers, boards, risk committees.

****Primary Methodology:****

Qualitative—inductive thematic analysis of semi-structured expert interviews (n=10).

****Primary Contribution Type:****

Conceptual model and empirically derived antecedents of CSPM agility.

General Summary of the Paper

This paper investigates agility in cybersecurity policymaking as a strategic capability for organisations facing

Eligibility

Eligible for inclusion: ****Yes****

How Actionability is Understood

Actionability is implicitly framed as **policymaking agility**—the capacity to promptly adapt cybersecurity po

> “Policies are not an ideology that cannot be changed... they should instead be perceived as a means to

> “CSPM agility... means tailoring policies to both changes in the threat landscape and the organisation’s

What Makes Something Actionable

- Continuous sensing of threat landscape (internal/external)
- Policy adaptation to organisational risk appetite and maturity
- Integration of intelligence into agenda-setting and decision-making
- Feedback-informed reformulation and implementation
- Stakeholder awareness and engagement

How Actionability is Achieved / Operationalized

- **Framework/Approach Name(s):** Cybersecurity Policy Helix
- **Methods/Lever(s):** Continuous intelligence gathering, iterative agenda-setting, flexible decision-making
- **Operational Steps / Workflow:** Sense → Synthesise → Agenda-setting → Policy formulation/decision-making
- **Data & Measures:** Threat intelligence (internal/external), vulnerability scans, risk assessments, incident response
- **Implementation Context:** Cross-sectoral, adaptable to organisational size/maturity

> “Intelligence for policy formulation/reformulation can come from both internal and external sources... The Helix model is designed to be flexible and adaptable to different organisational contexts.”

> “Evaluation can occur locally at each stage... results might return to agenda-setting” (p. 8)

Dimensions and Attributes of Actionability (Authors’ Perspective)

- **CL (Clarity):** Yes — training, awareness, common policy language stressed (p. 9)
- **CR (Contextual Relevance):** Yes — policy must align with organisational maturity and risk appetite (p. 9)
- **FE (Feasibility):** Yes — workarounds for legacy systems and phased maturity building (p. 6)
- **TI (Timeliness):** Yes — adapt policies before scheduled review cycles (p. 6)
- **EX (Explainability):** Partial — rationale for changes linked to risk mitigation, though not explicitly framed (p. 9)
- **GA (Goal Alignment):** Yes — align policy with business risk mitigation and enabling operations (p. 6)
- **Other Dimensions Named by Authors:** Awareness, adaptability, stakeholder collaboration

Theoretical or Conceptual Foundations

- Digital agility and organisational agility literature (Pinsonneault & Choi, 2022; Grover, 2022)
- Policy cycle framework (Lasswell, Brewer, Howlett et al.)
- Dynamic policy cycle (Valle-Cruz et al., 2020)

Indicators or Metrics for Actionability

- Frequency and responsiveness of policy updates
- Reduction in unmitigated vulnerabilities
- Employee policy compliance rates
- Outcomes of “top table” simulations

Barriers and Enablers to Actionability

- **Barriers:** Board inexperience, lack of asset visibility, resistance to change, poor communication, legal constraints

- **Enablers:** Informed leadership, structured asset/vulnerability management, dedicated risk committee

Relation to Existing Literature

Builds on organisational agility and dynamic policy cycle research, addressing a gap in operationalising a

Summary

The paper reframes “actionability” as agility in cybersecurity policymaking, grounded in the ability to integ

Scores

- **Overall Relevance Score:** 88 — Strong implicit conceptualisation of actionability as policymaking agi
- **Operationalization Score:** 90 — Concrete framework, workflow, and organisational practices directly

Supporting Quotes from the Paper

- “[CSPM agility] means tailoring policies to both changes in the threat landscape and the organisation’s i
- “Many companies... don’t have an asset management system... If you’re trying to formulate a cybersec
- “Evaluation can occur locally at each stage... results might return to agenda-setting” (p. 8)
- “Change management is necessary... comprehending the risks” (p. 9)

Actionability References to Other Papers

- Valle-Cruz et al. (2020) — dynamic policy cycle
- Pinsonneault & Choi (2022) — digital agility
- Grover (2022) — digital culture/ambidexterity
- Siregar & Chang (2019) — cybersecurity agility
- Malatji et al. (2022) — asset management in cybersecurity