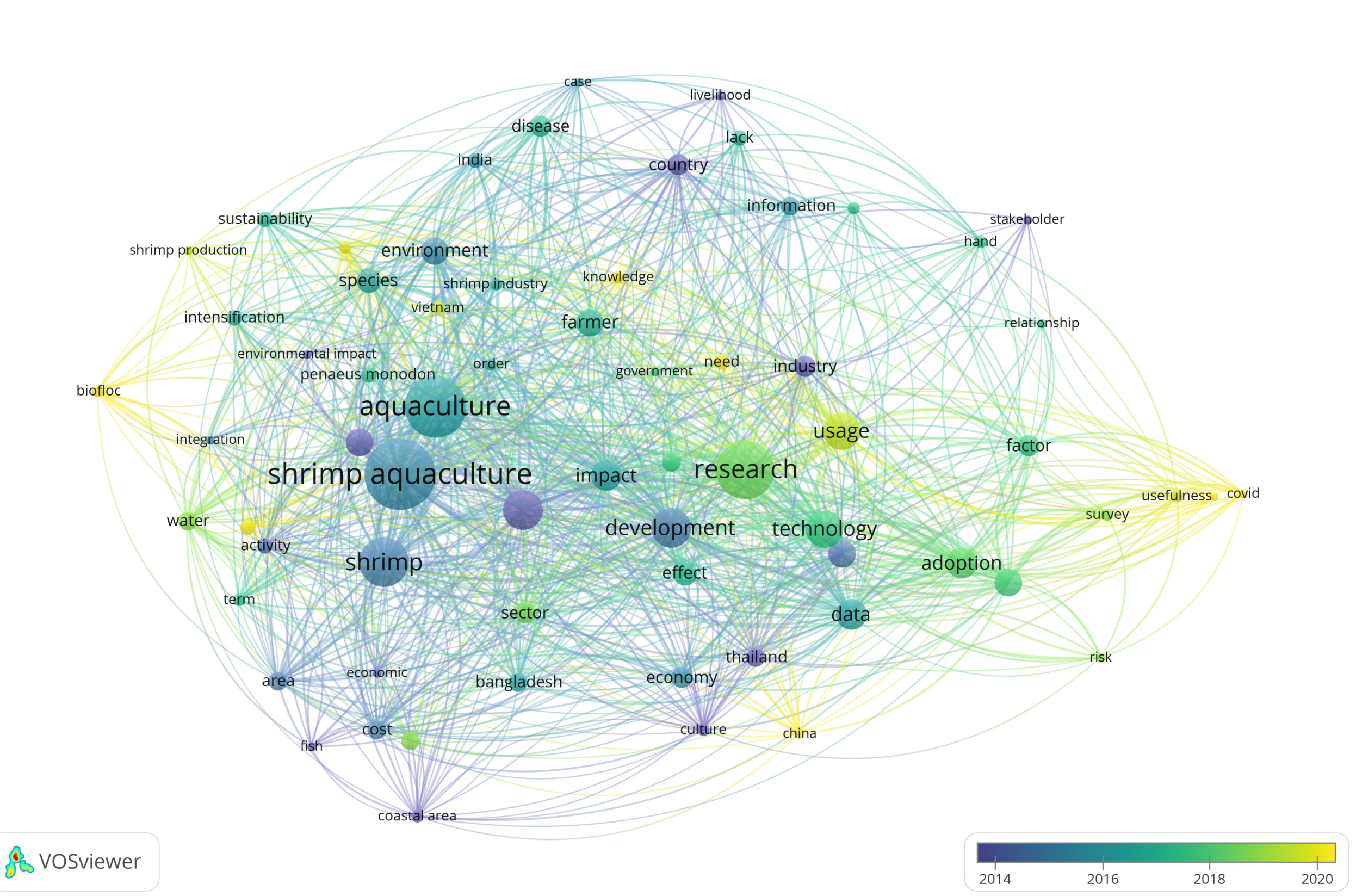# "Certification and traceability have the potential to drive the adoption of digital technology by unifying the needs of all stakeholder"

Title: "Digital Technology Adoption in Shrimp Aquaculture: Systematic Review".

Background: Various digital technologies have been widely adopted in shrimp aquaculture. However, the needs of different stakeholders are not being met due to the absence of standards.

Objective: Investigate the motivation for digital technology adoption in shrimp aquaculture and the possibility of improving its adoption.

Result: Keywords were extracted from 36 articles after being filtered through the PRISMA 2020 guideline; the frequency of their occurrence fluctuated over time. Significantly more publications are published during the COVID-19 pandemic.

Year	Publications
2023	3
2022	4
2021	6
2020	5
2019	2
2018	3
2017	2
≤2016	11

Result: The motivation of digital technology adoption in shrimp aquaculture among the biggest Asian shrimp exporter countries are regulation, profitability, modernization, productivity, and sustainability. But fewer countries are motivated by certification and traceability.

	1	2	3	4	5	6	7
China							
India							
Indonesia							
Bangladesh							
Thailand							
Vietnam							

1. Regulation
2. Profitability
3. Modernization
4. Productivity
5. Sustainability
6. Traceability
7. Certification

Articles mentioning the respective keyword is available

Articles mentioning the respective keyword is not available

1. Only two countries were observed implementing digital technologies driven by certification. Each of the countries listed has its own certification scheme.

2. The significance of farm-level product traceability has been highlighted in the FAO's SOFIA 2022 report.

Methods [Systematic review] [PRISMA 2020]

1. Digital technology acceptance in aquaculture

Search string: ("digital" OR "smart" OR "iot" OR "internet of things" OR "ict" OR "information") AND "technology" AND ("acceptance" OR "adoption") AND "aquaculture"

Database: ScienceDirect & Web of Science

2. Filter the result by shrimp aquaculture in six biggest Asian shrimp exporter countries: China, India, Indonesia, Bangladesh, Thailand, and Vietnam

Limitation: We only include articles that were written in English language.

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