



2022

Cybersecurity Awareness about Emerging Risks 2022 Market research result



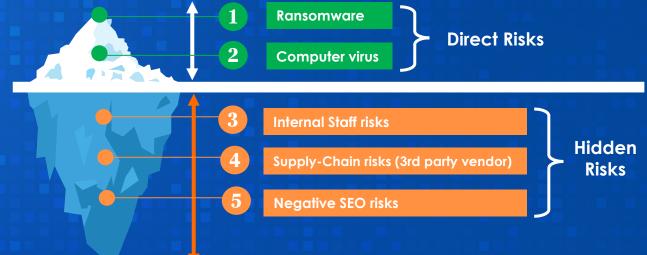


Research Objective

Cybersecurity covers a wide range of topics, including direct cyberattack (e.g. virus/ ransomware) but also some <a href="https://doi.org/10.1001/jha.2001/j

This study aims to understand the current situation of Hong Kong companies towards the **three emerging risks**.

- 1. Awareness Level
- 2. Risk Level
- 3. Protection Measures



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Research Background

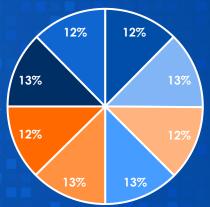
• Target: Decision Makers/ IT Managers

Total Respondents: 824 Responses

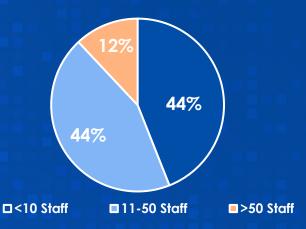
(Data collection via telephone interview in July 2022)

By Business Sector

- □Accommodation and Catering Services
- **Financial Services**
- ■Information Technology
- Manufacturing and Import/Export/Wholesales
- ■NGOs and Others
- Professional Businesses
- **□** Retail
- □Training and Education

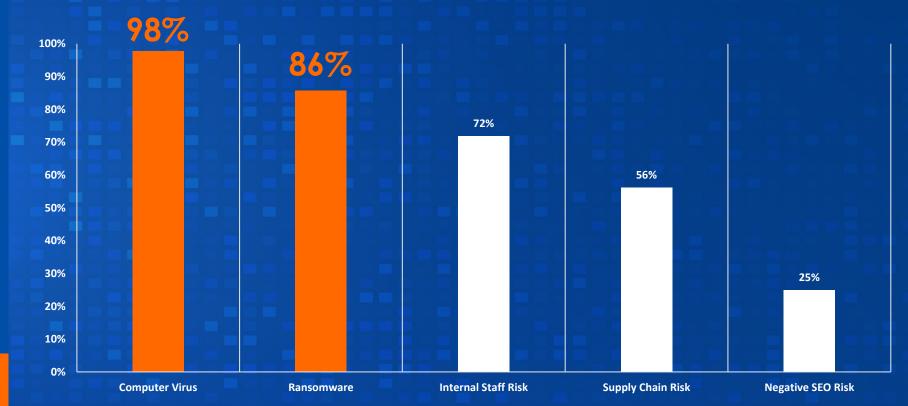


By Size of Company





Awareness Level of Emerging Risks





Internal Staff Risk

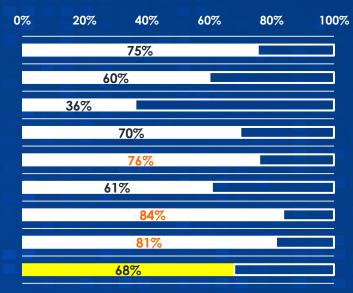


Internal Staff Risk Level

Increased Digital Usage During Pandemic



Self-Evaluation* - Insufficient Staff Cybersecurity Awareness



^{*} Note: Assessment based on past experience (carefulness of staff/ any incidents happened/ current practice/ etc)

Accommodation and Catering
Services

Financial Services

Information Technology

Manufacturing and Import/Export/Wholesales

NGOs and Others

Professional Businesses

Retail

Training and Education

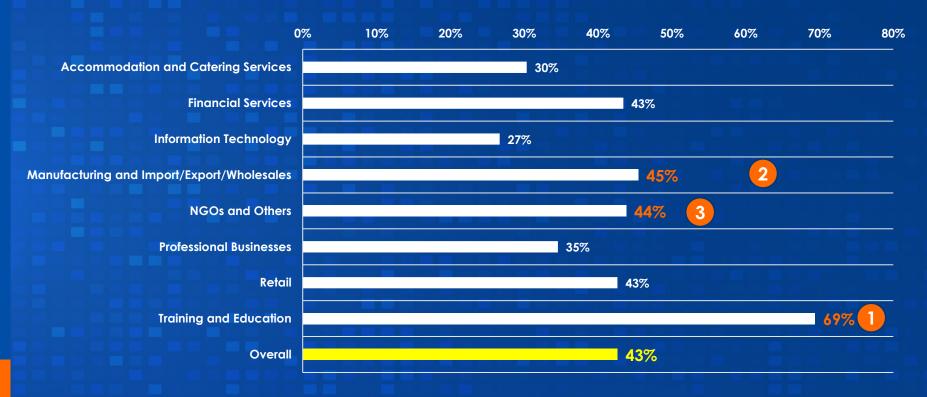
Overall

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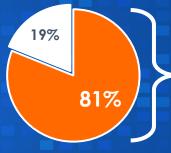
Internal Staff Risk Level





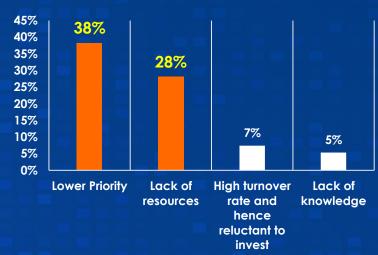
Internal Staff - Protection

Did Not Provide Regular Cybersecurity Training



- 91% Retail
- 89% Accommodation and Catering Services
- 88% NGOs and Others
- 87% Manufacturing and Import/Export/Wholesales
- 85% Training and Education
- 75% Professional Businesses
- 70% Information Technology
- 62% Financial Services
- ■No Regular Training
- ■With Regular Training

Reason for No Regular Cybersecurity Training Provided





Overview – Internal Staff

- 1. Overall, 81% businesses did not provide regular training
- 38% Mainly due to Low Priority
- 28% Lack of Resources
- 3. Although "Retail" is not top 3 among the 8 sectors in terms of Risk Level, due to lack of protection, the Vulnerability Level is higher

- 2. In terms of Vulnerability Level, the top 3 sectors are
- **59%** Training and Education
- 39% Manufacturing and Import / Export / Wholesales
- **39%** Retail
- 4. The Vulnerability Level of "Training and Education" is much higher than other sectors (59%)

| | Internal Staff Risk Level (A) | Rank | No Regular Training (B) | Rank | Vulnerability Level (A) X (B) | Rank 2 |
|---|----------------------------------|------|----------------------------|------|-------------------------------------|--------|
| Accommodation and Catering Services | 30% | 7 | 89% | 2 | 27% | 5 |
| Financial Services | 43% | 4 | 62% | 8 | 27% | 6 |
| Information Technology | 27% | 8 | 70% | 7 | 19% | 8 |
| Manufacturing and Import/Export/Wholesales | 45% | 2 | 87% | 4 | 39% | 2 |
| NGOs and Others | 44% | 3 | 88% | 3 | 39% | 4 |
| Professional Businesses | 35% | 6 | 75% | 6 | 26% | 7 |
| Retail | 43% | 5 ③ | 91% | 1 | 39% | 3 |
| Training and Education | 69% | 1 | 85% | 5 | 59% 4 | 1 |
| Overall | 43% | | 81% ① | | 35% | |

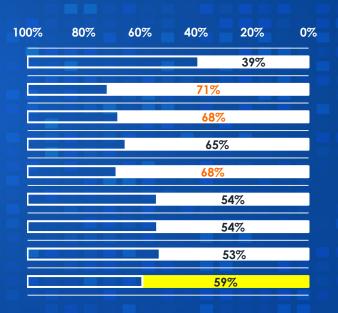


Supply Chain Risk



Supply Chain Risk Level

Using Third Party Service



Accommodation and Catering Services

Financial Services

Information Technology

Manufacturing and Import/Export/Wholesales

NGOs and Others

Professional Businesses

Retail

Training and Education

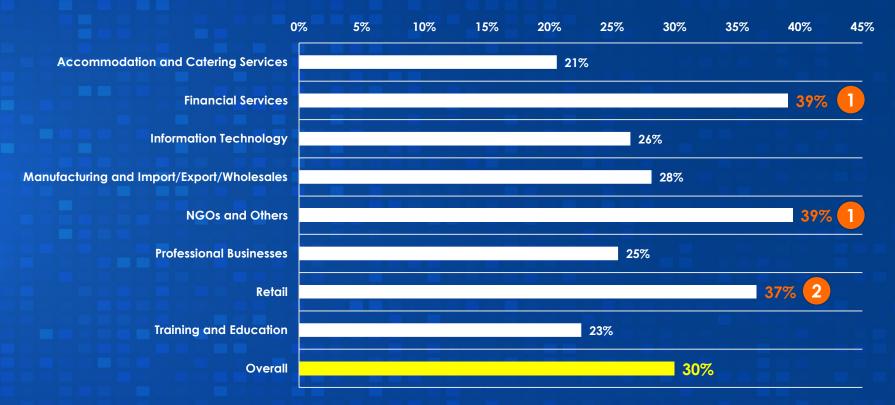
Overall

Third Party Able to Access to Company/Clients' Information

| 0% | 20% | 40% | 60% | 80% | 100% |
|----|-----|--------|-----|-----|------|
| | 53% | | | | |
| | 55% | 7 0 | | | |
| | 39% | | | | |
| | 43% | | | | |
| | 589 | % | | | |
| | 47% | | | | = |
| | | 68% | | | |
| | 43% | | | | |
| | 51% | | | | |



Supply Chain Risk Level





Supply Chain Risk Level

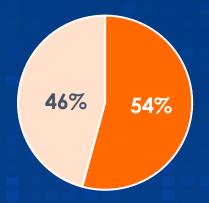
Active Protection towards Third-Party Vendor



Active protection measures include:

- 63% Restrict supplier access rights
- 57% Encrypt for data exchange
- 47% Regularly update software provided by suppliers

No Active Protection Measures



- Include data protection clauses in contracts with suppliers only
- ■No Measures



Overview – Supply Chain Risk

- 1. Overall, 41% no active protection
- Some companies (54%) include data protection clauses in contracts with suppliers only
- 3. Although "Financial Service" is top 3 in terms of Risk Level, the protection measures make it better off to reduce vulnerability level

- 2. In terms of Vulnerability Level, the top 3 sectors are
- 23% NGOs and Others
- 21% Retail
- 13% Manufacturing and Import/Export/Wholesales
- 4. "NGOs and Others" & "Retail" common top 3 in both Risk Level and No Active Protection and make it the highest Vulnerability Level

No Active Protection Measures 1 0% 20% 40% 60% 80% 100% Include data protection clauses in contracts with suppliers only No Measures

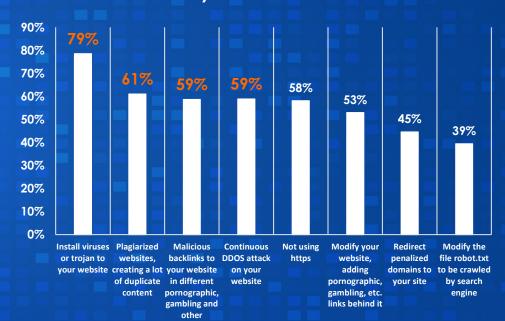
| | Supply Chain Risk Level (A) | Rank | No Active Protection (B) | Rank | Vulnerability Level (A) X (B) | Rank 2 |
|---|-----------------------------------|------|--------------------------------|------|-------------------------------------|--------|
| Accommodation and Catering Services | 21% | 8 | 50% | 3 | 11% | 5 |
| Financial Services | 39% | 2 🕄 | 31% | 7 | 12% | 4 |
| Information Technology | 26% | 5 | 20% | 8 | 5% | 8 |
| Manufacturing and Import/Export/Wholesales | 28% | 4 | 45% | 4 | 13% | 3 |
| NGOs and Others 👍 | 39% | 1 | 59% | 1 | 23% | 1 |
| Professional Businesses | 25% | 6 | 35% | 6 | 9 % | 7 |
| Retail 👍 | 37% | 3 | 57% | 2 | 21% | 2 |
| Training and Education | 23% | 7 | 39% | 5 | 9% | 6 |
| Overall | 30% | | 41% 1 |) | 12% | |



Negative SEO Risk



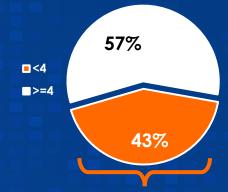
Awareness of the Negative Impact on SEO Ranking by Below Issues



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websites

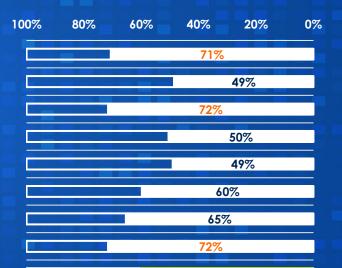
Lack of Awareness of Negative Impact on SEO (Number of Awareness <4 Issues)



- 56% Accommodation and Catering Services
- 52% Retail
- 48% Training and Education
- 47% Professional Businesses
- 46% Manufacturing and Import/Export/Wholesales
- 45% NGOs and Others
- 31% Financial Services
- 17% Information Technology



SEO is Important to the Business

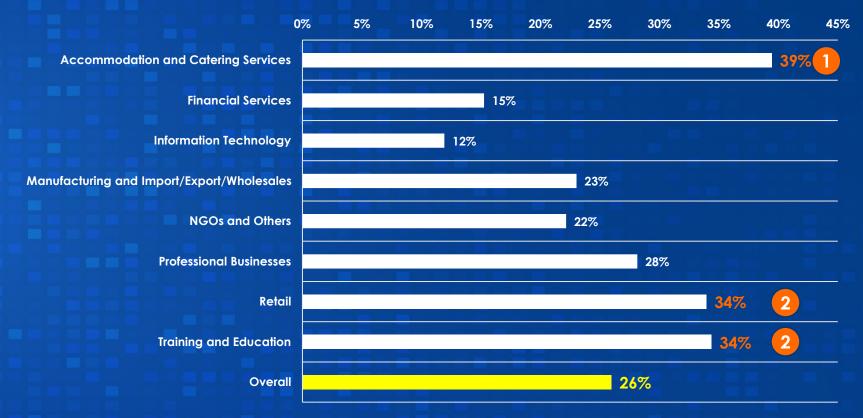


Lack of Awareness of Negative Impact on SEO

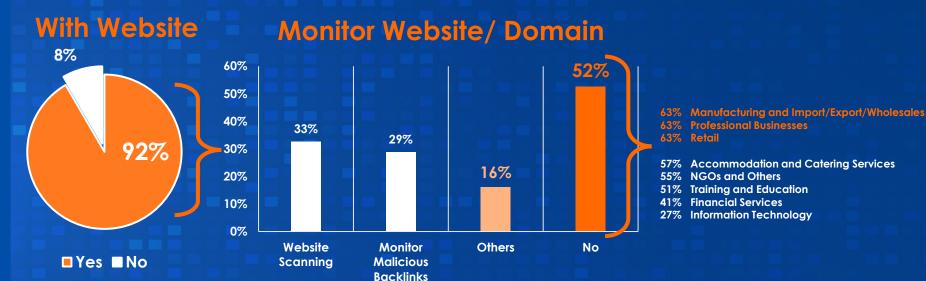












Others include

- Monitor by firewall/ anti-virus software
- Monitor traffic (e.g. by google analytics/ backend log)
- Outsource to third-party on monitoring



Overview – Negative SEO Risk

- 1. Overall **52%** of business do not monitor their website/ domain to identify the risk However some hidden risks can be only identified by regular scanning and monitoring, without being alerted by firewall/ anti-virus software
- 3. Although "Professional Businesses" is out of top 3 in terms of Risk Level, the lack of monitoring makes it Top 3 in terms of Vulnerability Level

- 2. In terms of Vulnerability Level, the top 3 sectors are
- 22% Accommodation and Catering Services
- 21% Retail
- 18% Professional Businesses

4. Vice versa, "Training and Education" drops out of Top 3 due to better performance in monitoring website/domain although they are at high risk level

| | Negative SEO Risk Level (A) | Rank | No Monitoring (B) | Rank | Vulnerability Level (A) X (B) | Rank 2 |
|---|--------------------------------|------|----------------------|------|----------------------------------|--------|
| Accommodation and Catering Services | 39% | 1 | 57% | 4 | 22% | 1 |
| Financial Services | 15% | 7 | 41% | 7 | 6 % | 7 |
| Information Technology | 12% | 8 | 27% | 8 | 3% | 8 |
| Manufacturing and Import/Export/Wholesales | 23% | 5 | 63% | 2 | 15% | 5 |
| NGOs and Others | 22% | 6 | 55% | 5 | 12% | 6 |
| Professional Businesses | 28% | 4 3 | 63% | 1 | 18% | 3 |
| Retail | 34% | 3 | 63% | 3 | 21% | 2 |
| Training and Education | 34% | 2 🐠 | 51% | 6 | 18% | 4 |
| Overall | 26% | | 52% ① | | 14% | |



Summary

hkirc

Summary

- 1. "Financial Services" and "Information Technology" are the best-performing sectors
- 2. In terms of **Risk Level**, there are sector effects in different risks which make them to be **early** wave of potential victim under the emerging risks
- Internal Staff Rapid digitalisation during pandemic
- Supply Chain Usage of third-party vendor
- Negative SEO Rely on online promotion

- 3. "Supply Chain" overall **lowest** vulnerability level among 3 risks
- 4. "Internal Staff" highest in all "Vulnerability Level", "Risk Level" and "No Protection Level" despite the highest awareness level (72%) as shown in P.4 (知易行難)
- 5. Although its business nature make it at high risk, the vulnerability level can be effectively **reduced with protection**,
- e.g "Financial Services" in Supply Chain
- 6. "Retail" is top 3 in terms of Vulnerability Level among all 3 risks

| | Internal Staff Risk Level | No Regular Training | Vulnerability Level | Supply Chain Risk Level | No Active Protection | Vulnerability Level | Negative SEO Risk Level | No Monitoring | Vulnerability Level |
|---|------------------------------|------------------------|------------------------|----------------------------|-------------------------|------------------------|----------------------------|---------------|------------------------|
| Accommodation and Catering Services | 30% | 89% | 27% | 21% | 50% | 11% | 39% | 57% | 22% |
| Financial Services | 43% | 62% | 27% | 39% | 31% | 5 12% | 15% | 41% | 6% |
| Information Technology | 27% | 70% | 19% | 26% | 20% | 5% | 12% | 27% | 3% |
| Manufacturing and Import/Export/Wholesales | 45% | 87% | 39% | 28% | 45% | 13% | 23% | 63% | 15% |
| NGOs and Others | 44% | 88% | 39% | 39% | 59% | 23% | 22% | 55% | 12% |
| Professional Businesses | 35% | 75% | 26% | 25% | 35% | 9% | 28% | 63% | 18% |
| Retail 6 | 43% | 91% | 39% | 37% | 57% | 21% | 34% | 63% | 21% |
| Training and Education | 69% | 85% | 59% | 23% | 39% | 9% | 34% | 51% | 18% |
| Overall | 43% | 4 81% | 35% | 30% | 41% | 3 12% | 26% | 52% | 14% |

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Advice from HKIRC

Internal Staff Risk

- ✓ Provide **regular training**, leverage free resources if any difficulties
- ✓ Conduct phishing drill as assessment
- ✓ Subscribe to **daily cybersecurity news** to understand the latest industry trend, both locally and globally

Supply Chain Risk

- Not only data protection clauses to transfer responsibility, but also **active protection measures**. Ultimately the damage will also affect your company if it happens
- ✓ Active protection measures to consider
 - Conduct security assessment to vendors during appointment or renewal
 - Set access control with vendors
 - Encrypt data transaction with vendors
 - Install regular software updates from vendors
 - Remove unnecessary access immediately once task/service completed

Negative SEO Risk

- ✓ Understand what the **common negative SEO issues** are (e.g. the 8 issues covered in P.16)
- ✓ Conduct regular website scanning
- ✓ Conduct regular backlink monitoring
- ✓ Apply SSL certificate for https website
- Report to search engine service provider once malicious findings are sought



Advice from HKIRC - Free Resources



HKIRC Cybersec Training Hub

Cybersec Infohub

Free Webscan Service to .hk Users

CyberDefender

Cyber Security Information Portal

- Free platform for staff's cybersecurity awareness training
- E-certificate will be generated for staff management upon completion

Website: https://cyberhub.hk

- Cybersecurity information shared by industry experts
- Receive daily cybersecurity news
- Raise questions to security experts
- Regular cybersecurity events

Website: https://cybersechub.hk

- Free website security scanning service
- Free consultation services

Website: https://hkirc.hk

- Security checking tools,
 e.g. password strength/ Phishing Scam Search Engine
- Cybersecurity events and programmes

Website: https://cyberdefender.hk/

- Security Advice
- Best Practices

Website: https://www.cybersecurity.hk/

Thank You