

1. Title

The Human Factor: Preventing Social Engineering Attacks as an SME

2. Topics of Discussion

- What is social engineering?
- Why is it successful?
- How can it be prevented?
- What are some difficulties in prevention?
- Final thoughts

3. What is social engineering?

- Definition: Social engineering focuses on the manipulation of human psychological factors rather than network or system vulnerabilities to extract sensitive data.

3.1.

- Rate of social engineering attacks in 2023 by %

Image:

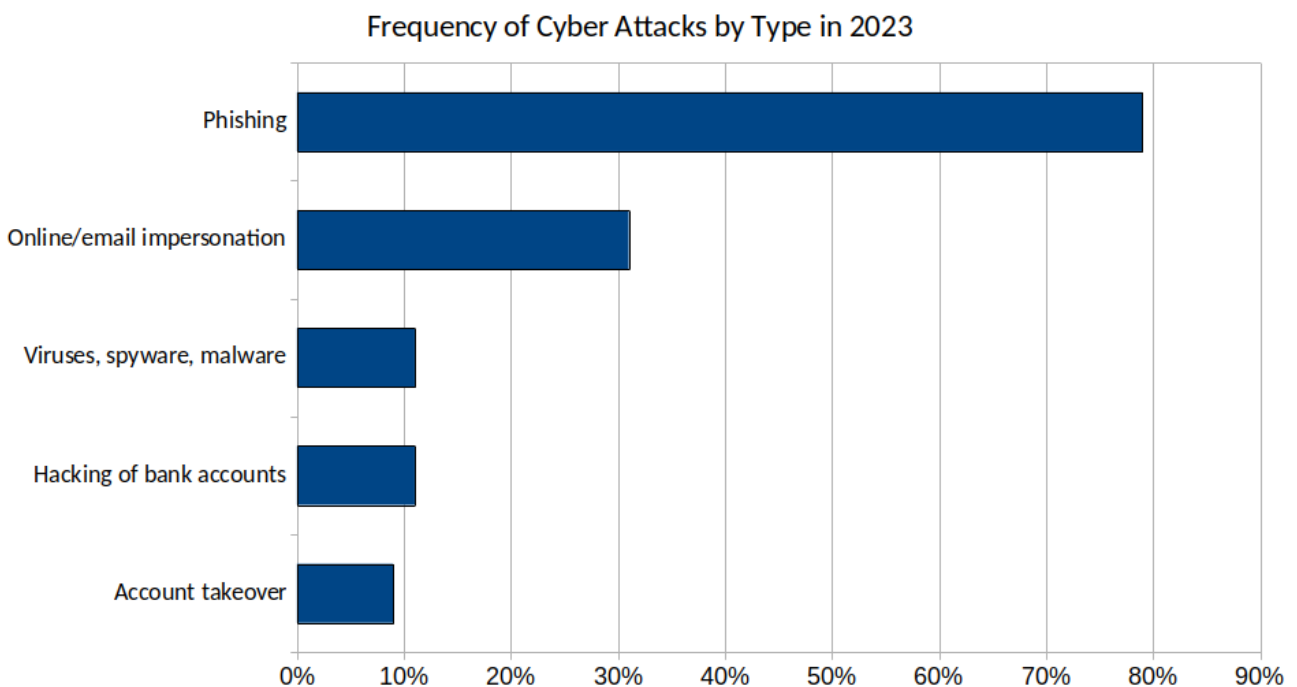


Figure 1: (Ell & Johns, 2023)

4. Why is social engineering successful?

- Answer: Humans, we are acknowledged to be the weakest link of an organizations security

4.1 Low-Level Psychology

- How low-level psychology works in social engineering:

Tables:

Table 1: Psychological Factors

Exploit
Trust
Gullibility
Greed
Group mind
Desire to help
Desire to be liked

Table 2: Tactical Approaches

Tactic
Impatience
Politeness
Inducing fear
Faking supplication
Faking authority
Ingratiation/deference

4.2 High-Level Human Factors

- Lack of knowledge and memory failure
 - What, why, how
 - Tends to coincide with Man-in-the-Middle attacks
- Faulty reasoning and judgment
 - What, why, how
 - Tends to coincide with Phishing attacks
- Casual values and attitudes about compliance
 - What, why, how
 - Can lead to many attacks, such as physical artifact attacks or malicious insiders

5. How can Social Engineering be Prevented?

- Need individual and organizational approaches

5.1 At the Individual Level

- capability
 - do they know how to do it
- motivation
 - do they want to do it
- opportunity
 - can they do it in an opportune way

5.2 At the Organisation level

- capability
 - redesign policies
 - education
 - skill building
- motivation
 - awareness campaigns
 - incentives

- organizational response

- opportunity

- engage employees in sec review/design

- security champions

- nudge / prompt

6. Difficulties in Social Engineering Prevention

- Budget constraints

- employee push back

- organizational culture

7. Final Thoughts

- Law and ethics

- Conclusion