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The Future of Security Technology and Stakeholder Expectations: A Strategic Approach

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Abstract

New technologies are changing the way organizations work, but not everyone involved always agrees on how they should be used. Adopting new technologies can bring great opportunities, but it also requires companies to meet the expectations of many different stakeholders, from customers to investors. Stakeholders have different expectations from technologies like artificial intelligence (AI), blockchain, multi-factor authentication, end to end encryption, secure management of their credit card and personal details. This article discusses the challenges organizations face in managing stakeholder expectations implementing new technologies (security technologies). Paper also covers framework to manage the expectations of various stakeholders to maintain transparency and to gain required support from them. This paper highlights the importance of clear communication and education to get everyone onboard with new technologies, especially when security concerns are a big factor.

Introduction

The world of cybersecurity is evolving faster than ever before. New threats emerge daily, and the technology required to combat these threats must be equally dynamic. Technology landscape is emerging/evolving exponentially to meet the new challenges or to grow the business. Technologies like Artificial Intelligence, Cloud Computing, Block-chain, Machine Learning, and IoT devices are changing the way organizations used to operate but at the same time, it brings new security risks to the organizations. Every month, every quarter some

new products come in the market providing competitive advantage to organizations or to solve complex business problems. Organizations invest millions of dollars on the technologies every year. Technology trends have become revolutionary. Gartner projected that global IT spending will reach \$5.74 trillion in 2025, marking a 9.3% increase over 2024 [1]. Forrester mentioned in their report that in the U.S., tech spending is expected to grow by 6.1% in 2025, reaching \$2.7 trillion [2][3]. According to a report by Grand View Research (2025), the security market was valued at approximately \$143.55 billion in 2024 and is projected to expand at a compound annual growth rate (CAGR) of 7.6% from 2025 to 2030, potentially reaching \$225.21 billion by 2030 [4].

	2024 Spending	2024 Growth (%)	2025 Spending	2025 Growth (%)
Data Center	329,132	39.4	405,505	23.2
Systems				
Devices	734,162	6	810,234	10.4
Software	1,091,569	12	1,246,842	14.2
IT Services	1,588,121	5.6	1,731,467	9
Communications Services	1,371,787	2.3	1,423,746	3.8
Overall IT	5,114,771	7.7	5,617,795	9.8

As security technologies are emerging rapidly, it has become challenging to meet the stakeholders' expectations. Stakeholders are customers, workforce, or

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investors who have diverse interests, priorities and expectations about benefits. Managing stakeholders' expectations become crucial for management when they invest millions of dollars on new security technologies. Stakeholder management is not just about strategically managing stakeholder relationships but also gaining the required support from them to implement these new technologies successfully. Stakeholder management process typically includes identifying stakeholders, analyzing them, interacting with them, monitoring them, and reporting on the outcomes [5].

Challenges Around Managing Stakeholder Expectations

Managing stakeholder expectations, especially with new technologies and security, can be challenging due to several factors, as different stakeholders have different goals, priorities, and levels of influence. Here are some common challenges with managing their expectations:

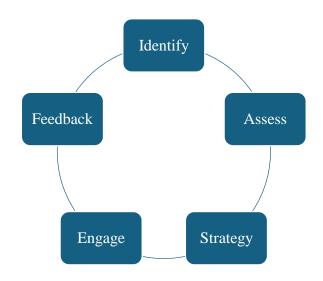
- Lack of understanding of complexities because understanding security complexities can be tough by limited knowledge of stakeholders
- Underestimating the security threats by not understanding the underlying risks to the organizations and their businesses which can lead to insufficient protection against ever-evolving cyber threats.
- Striking the right balance between security and usability of new technologies is crucial, as overly stringent security measures may hinder user experience and productivity.
- Uncertainty about long-term effectiveness of investment arises when stakeholders question whether the security technologies will remain relevant and effective in the face of rapid technological advancements

- Integration and compatibility issues occur when new security technologies don't seamlessly integrate with existing systems
- Regulatory compliance can be challenging due to constantly changing laws and industry standards, requiring ongoing adjustments to security technologies
- Diverse stakeholders' expectations that can complicate decision-making, as different groups within the organization always have different priority and goals

Stakeholders Management Framework

To effectively manage the stakeholders' expectations when it comes to new technologies and trends, an appropriate structured framework is required. Below is a suggested framework to overcome these challenges around stakeholders' management:

Stakeholders Identification \rightarrow Expectation Assessment \rightarrow Communication Strategy \rightarrow Stakeholders Engagement \rightarrow Feedback Loops



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- 1. Stakeholders **Identification**: Before implementing new technologies, it is the first step identify the relevant stakeholders. Stakeholders may be internal (employees, contractors, auditors, application teams etc.) or can be external (investors, partners, vendors, customers etc.). Stakeholders are individuals or group on individuals who have an influence, or an interest in the work involved [8]. We need to consider everyone in this phase who have ability to impact and enhance the work involved / project.
- 2. Assessment of Stakeholder Needs: This is second phase to identify the needs of each stakeholder. In this phase, a thorough analysis is done on the stakeholders to understand their expectations, needs, priorities, availability, interests and influential level. There can be different based on their interests and influential levels:
 - Low Interest and Low Influential Level
 - Low Interest and High Influential Level
 - o High Interest and Low Influential Level
 - High Interest and High Influential Level

Categorizing stakeholders in this way allows organizations to prioritize their engagement strategies based on how critical each group is to the success of initiative.

3. Strategy and Planning: Once you identify and assess the stakeholders, a plan must be formed to engage with stakeholders. This plan must layout their high-level strategy including the involvements expectations, communication templates, reports, frequency of those mechanism/channel engagements, for engagements etc. Some stakeholders may need weekly or monthly report of the progress, and some stakeholders may be required on daily or

- weekly basis on different phases of the project or program.
- 4. Communicate and Engage: Next step in the framework is to engage stakeholders as planned. Stakeholders feel valued and interested when they are engaged and communicated. This also helps in building trust, reduce risks and misunderstandings, and makes it easy to get their support. If stakeholders are engaged, they also help in making decisions that leads to better results. Keeping stakeholders informed and involved leads to smoother execution and better results for everyone.
- 5. **Feedback**: Getting feedback is always important, especially when it comes to evolving technologies because stakeholders bring valuable insights that can help guide the direction of the project or initiative. Evolving technologies always require regular changes and adjustments to derive results and stakeholders feedback helps organizations stay responsive to these changes. Their insights can help steer development in a direction that balances innovation with security and functionality. Their feedback fosters trust and confidence in both the technology and organization.

Conclusion

Strategic approach is needed to manage the expectations of the stakeholders. By focusing transparent communication, risk management, and their involvement can mitigate the challenges around new technology adoption. Stakeholders support innovation and ideas when they feel informed, respected, and involved. This helps everyone feel confident about the changes, knowing their data and privacy are secure. Organizations that focus on both innovation and security will be better positioned to succeed, keeping all their stakeholders happy and safe.

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