Module 8.2\_Assigment

**Assignment 8: The Dangers of Change Approval Processes**  
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<https://github.com/bellevuerajesh/CSD-380/tree/main/module-8>

**The Dangers of Change Approval Processes**

**Introduction**

Change approval processes are established to facilitate the implementation of organizational changes while minimizing disruption and maximizing oversight. Typically, these processes require the involvement of various stakeholders who review, approve, and validate the proposed changes. Although these procedures aim to reduce risks and uphold stability, they may unintentionally lead to inefficiencies, hinder innovation, and diminish productivity. This paper examines the potential pitfalls of change approval processes, drawing on real-world examples and research, and offers recommendations for addressing these issues.

**Delays and Bottlenecks**

A prevalent risk faced by organizations is the prolonged duration resulting from sluggish approval processes. A study conducted by Puppet Labs on the State of DevOps reveals that organizations with inflexible change approval boards (CABs) encounter a 23% increase in lead time for implementing changes when compared to those utilizing automated pipelines. A significant instance of this issue arose within a financial institution, where essential software updates were postponed while awaiting CAB approvals, ultimately resulting in a security breach.

**Decreased Innovation**

Excessively rigid processes can stifle experimentation and hinder innovation. Employees might refrain from suggesting significant changes due to concerns that the approval procedures will be overly complex. This challenge is especially pronounced in sectors like technology startups, where flexibility and swift iteration are essential for maintaining a competitive edge. A notable instance is Google's transition from conventional change approval methods to peer review systems, which has been implemented to enhance creativity and agility within its teams.

**Resource Inefficiency**

The creation of comprehensive documentation and presentations for approval boards requires significant resources. According to a report by McKinsey & Company, organizations allocate as much as 30% of their project time to the approval process, which diminishes the time available for actual implementation.

**Decision Fatigue**

An excessive number of changes directed through approval boards can overwhelm decision-makers, resulting in inconsistent or less effective decisions. A study conducted by MIT Sloan emphasized that stakeholders who frequently engage in the approval process are more prone to making mistakes or prematurely dismissing valid changes.

**Lack of Accountability**

Collaborative decision-making can lead to a dilution of accountability. With multiple stakeholders involved, it becomes difficult to identify who is responsible for specific outcomes, often resulting in a tendency to shift blame when issues arise.  
  
**Mitigating the Dangers**

**Automation and DevOps Practices**

Automation serves as a vital approach to address the inefficiencies inherent in change approval processes. The implementation of DevOps methodologies, particularly continuous integration and continuous delivery (CI/CD), substitutes traditional manual approvals with automated testing and deployment mechanisms. Research conducted by the DevOps Research and Assessment (DORA) indicates that high-performing teams utilizing CI/CD pipelines achieve deployment frequencies that are 46 times greater, accompanied by a failure rate that is five times lower.

**Peer Reviews**

The substitution of Change Advisory Boards (CABs) with peer reviews can significantly accelerate the approval process while preserving quality standards. For example, Netflix adopts a "freedom and responsibility" framework, wherein engineers engage in mutual code reviews rather than submitting changes through CABs, thereby facilitating quicker release cycles.

**Streamlined Processes**

Organizations can enhance their change processes by classifying changes according to their associated risk levels. Changes deemed low-risk may be pre-approved or automated, while those classified as high-risk should undergo more thorough evaluations. This strategy, as practiced by Amazon Web Services, ensures that minor modifications are not impeded by excessive bureaucratic procedures.  
  
**Conclusion**  
The processes for approving changes are designed to safeguard organizations against potential risks; however, if not executed properly, they can lead to considerable obstacles. Key issues include delays, stifled innovation, inefficient use of resources, decision fatigue, and weakened accountability. Implementing contemporary strategies such as automation, DevOps practices, and optimized workflows can help alleviate these challenges and enhance overall operational efficiency. It is crucial for organizations to find an appropriate equilibrium between control and flexibility to succeed in a fast-changing business landscape.

**References**

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