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CASE STUDY ANALYSIS

Westmount Dynamics

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# INTRODUCTION

In the ever-evolving realm of autonomous vehicle technology, Westmount Dynamics, a pioneering technology company in Halifax, Nova Scotia, grapples with internal discord and divergent design philosophies within its engineering team. Focused on developing the groundbreaking Nimbus sensor system, the company faces challenges epitomized by the conflicting approaches of senior engineers Alex Nguyen and Jamie Chen. As the engineering manager, Charlotte Amaya must navigate this tumultuous landscape to bring cohesion to the Nimbus design, balancing innovation with safety in a critical juncture for Westmount Dynamics. This case study delves into the intricacies of organizational dynamics, individual perspectives, and external pressures shaping the destiny of the Nimbus project.

# KEY ISSUES

**Internal Team Conflict:**

The persistent and escalating conflicts between senior engineers, Alex Nguyen and Jamie Chen, pose a significant internal challenge. Their animosity not only disrupts effective communication but also diverts focus from the primary objective of devising an innovative and safe design for the Nimbus sensor. This ongoing tension threatens team morale and jeopardizes the overall success of the project.

**Unclear Design Direction:**

The Nimbus design project faces a critical challenge due to the absence of a clear and consistent direction. The evolving requirements and lack of a definitive design goal have led to confusion among team members. This uncertainty has resulted in a series of course corrections, causing delays and hindering the project's progress. Establishing a coherent and stable design direction is imperative for moving forward efficiently.

**Leadership Challenges:**

The leadership approach of Charlotte Amaya, the engineering manager, is contributing to challenges within the team. Her conflict-avoidant style, while conducive to a harmonious work environment, becomes a hindrance in situations demanding decisive action. The team's need for clear guidance and swift decision-making clashes with Charlotte's consultative approach, leading to indecision and a lack of effective leadership during critical phases of the project.

**Innovation-Safety Balancing Act:**

Striking the right balance between innovation and safety standards emerges as a central challenge. The company's commitment to pushing technological boundaries for competitive advantage clashes with the stringent safety protocols inherent in the design of sensors for autonomous vehicles. This struggle to reconcile innovation with safety is impeding the development of the Nimbus sensor, hindering its potential as a cutting-edge yet reliable product.

Addressing these key issues requires a comprehensive plan of action that will be meticulously outlined in the subsequent sections of this case study.

# ROOT CAUSES

**Communication Breakdowns:** The evident clash between Alex and Jamie stems from a breakdown in communication channels within the team. Limited open dialogue and a failure to truly understand each other's perspectives contribute to the escalating conflict. This lack of effective communication impedes collaboration and inhibits the constructive exchange of ideas.

**Indecisive Leadership:** Charlotte Amaya's conflict-avoidant leadership style is a root cause contributing to the prolonged team indecision. The tendency to defer decisions and seek excessive information, although well-intentioned, fosters an environment where critical choices are delayed, causing frustration among team members and hindering progress.

**Inadequate Design Framework:** The absence of a robust design framework and shifting project goals contribute to the overarching challenge of an unclear design direction. The team's struggle to define and adhere to specific design criteria leads to iterative cycles, increased complexity, and project setbacks. A lack of a well-established design framework hampers the team's ability to move decisively toward project completion.

Addressing these root causes necessitates implementing targeted strategies, such as enhancing communication channels, refining leadership approaches, and establishing a coherent design framework.

# PLAN OF ACTION

**Enhance Communication Channels:**

* *Specific:* The recommendation is to introduce bi-weekly team meetings for open discussions, a strategy supported by Bovee and Thill (1992).
* *Timeframe:* The implementation is set to begin from the next workweek.
* *Measure of Success:* Success will be measured by evaluating the frequency and quality of constructive discussions during these team meetings, aiming to improve overall communication within the team.

**Leadership Development Workshops:**

* *Specific:* The proposal involves organizing workshops specifically tailored for Charlotte on decision-making and conflict resolution, drawing on Yukl's insights (2012).
* *Timeframe:* The first workshop is scheduled to take place within the next month.
* *Measure of Success:* Leadership improvements will be assessed through feedback from the team, providing a tangible measure of the impact of the workshops on Charlotte's leadership skills.

**Establish Design Criteria Framework:**

* *Specific:* This action item outlines the creation of a comprehensive design criteria framework, referencing Ulrich and Eppinger's work (2003).
* *Timeframe:* The development of this framework is expected to be completed within the next two weeks.
* *Measure of Success:* The success of this initiative will be monitored by tracking project progression and ensuring adherence to the established design criteria, aiming for improved efficiency and effectiveness.

**Implementation of SMART Goals System:**

* *Specific:* The recommendation is to introduce a SMART goals system specifically for the design team, aligning with Locke and Latham's principles (2002).
* *Timeframe:* The implementation is set to take place immediately.
* *Measure of Success:* The success of this initiative will be gauged by tracking project milestones, aiming for enhanced efficiency and goal attainment within the design team.

Executing these action items aims to systematically address root causes and ensure tangible improvements in team collaboration, leadership effectiveness, and project direction.

# CONCLUSION

In conclusion, Westmount Dynamics faces critical challenges in team collaboration, leadership dynamics, and defining precise design criteria for the Nimbus project. The evident conflicts between Alex and Jamie, exacerbated by a competitive design review culture, have impeded the project's advancement. The proposed plan of action emphasizes enhanced communication, leadership development, and establishing unequivocal design parameters. Successful implementation of these strategies relies on the team's collective commitment to change. As Westmount Dynamics moves forward, nurturing a collaborative culture aligned with the company's safety-focused values is imperative for the triumphant realization of the Nimbus project and future ventures.

# REFERENCES

Bovee, C. L., & Thill, J. V. (1992). *Effective Business Communication* (4th ed.). New York: McGraw-Hill.

Yukl, G. (2012). *Effective leadership behavior: What we know and what questions need more attention.* Academy of Management Perspectives, 26(4), 66–85.

Ulrich, K. T., & Eppinger, S. D. (2003). *Product design and development*. McGraw-Hill.

Locke, E. A., & Latham, G. P. (2002). *Building a practically useful theory of goal setting and task motivation: A 35-year odyssey.*  American Psychologist, 57(9), 705–717.