Situational Analysis: Ethical Decision

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The Situation

Recent graduate Jennifer Hart has been employed at Traffic Solutions after 6 months of doing co-op work there. Traffic Solutions is a research-based company devoted to developing efficient and intelligent traffic signaling and management systems. During her on the job training, Jennifer and two other engineers, Helen and Jacob, developed a prototype of a traffic flow monitoring using cameras which accurately measures the traffic flow and density. Upon graduation, Helen and Jacob accepted jobs with the company and continued their work.

A major issue with the team's prototype is that the at night, the image captured from the camera are over exposed due to the vehicle's headlights. Two other issues were that the system have difficulty tracking vehicles that are dark in color at night and that the bad weather significantly reduced the systems accuracy by 35%. The overexposed image issue was resolved when the team the team added a polarizing filter to the camera. In addition, the team tested nighttime performance by tracking other features of the vehicle to improve detection. The only major flaw left was the prototype's accuracy degrades when bad weather such heavy rain and foggy conditions. At this point, the project manager, Mark, told them that the company head wanted them to finish the prototype within a month to begin testing the system for the market. The company is struggling financially and relying on this innovation because of its potential to challenge conventional methods of monitoring vehicular traffic flow. Mark asked the team to write a report on the systems performance compared to ground sensors, traffic impact, and potential issues or drawbacks. He also stressed that the company is relying heavily on putting the prototype onto the market since they are beginning to attract and retain more investors. The team tells Mark that a month is not enough to address the flaw and develop a new prototype. Mark suggests that they leave the issue out of the report and address it in the meantime while the current version is tested and marketed. Jennifer disagrees and argues that releasing a faulty system onto the market will hurt them and the company in the long run.

Situational Analysis Report

Introduction

Traffic Solutions is a research-based company with a focus on developing intelligent and efficient traffic signaling and management systems. The company has been struggling financially and relies heavily on the development of a prototype by the team consisting of Jennifer Hart, Helen, and Jacob. The prototype has significant flaws that need to be addressed before it can be launched in the market. However, the team is under pressure from the company to finish the prototype within a month. This report analyzes the ethical decision-making process that the team should undertake to address the situation and make the right decision.

1. **Gather the facts.** Recent graduate Jennifer Hart and her colleagues developed a traffic flow monitoring system that accurately measures traffic flow and density using cameras. The prototype has three issues: overexposed images at night due to vehicle headlights, difficulty tracking dark-colored vehicles at night, and reduced accuracy by 35% in bad weather conditions. The company head wants the team to finish the prototype within a month to begin testing the system for the market. Project manager Mark asked the team to leave the issue out of the report and address it later while the current version is tested and marketed, but Jennifer disagrees.

2. **Define the ethical issues.** The ethical issue in this situation is whether the team should release a prototype that has a significant flaw in its performance, potentially endangering the public and damaging the company's reputation.

3. **Identify the affected parties.** The stakeholders in this situation include the team members, the company, investors, the public, and other road users.

4. **Identify the consequences.** If the team releases a faulty system onto the market, it could endanger the public and lead to negative consequences for the company's reputation. If the company's reputation is damaged, it could potentially lose investors and result in financial loss. On the other hand, if the team delays the release of the prototype to fix the flaws, the company may miss out on valuable market opportunities and potentially lose its investors.

5. **Identify the obligations.** The team has an obligation to ensure the safety of the public and the integrity of the company's reputation. They also have a responsibility to disclose any significant flaws or limitations in the system. Additionally, they have a duty to provide accurate and reliable information to investors and the public.

6. **Consider your character and integrity.** The team should consider their personal and professional values and their integrity in making the ethical decision. They should aim to act in a manner consistent with their own principles and values.

7. **Think creatively about potential actions.** The team can consider various potential actions, such as:
   - Discussing the issue with the company head and project manager and presenting a plan to address the flaw within a reasonable timeframe.
   - Conducting additional testing and analysis to determine the impact of the flaw and potential solutions.
   - Developing a marketing strategy that discloses the flaw and the company's plan to address it, to maintain transparency and honesty with investors and the public.
   - Refusing to release the prototype until the flaw is addressed, potentially risking their employment with the company.

8. **Check your gut.** The team must trust their instincts and make a decision that aligns with their personal and professional values. They must prioritize safety, transparency, and ethical considerations above short-term financial gains.

9. **Decide on the proper ethical action and be prepared to deal with opposing arguments.** The team should aim to address the flaw within a reasonable timeframe and provide transparency and honesty with investors and the public regarding the flaw and the plan to address it. This action aligns with the team's obligation to ensure the safety of the public and the integrity of the company's reputation. However, they must also be prepared to deal with opposing arguments from the company head and project manager who may prioritize financial gain and market opportunities over safety and transparency.

Final Decision

After evaluating the alternatives and considering the ethical implications of their decision, the team has decided to delay the launch of the system and address the flaw before launching it. The team recognizes that launching a faulty system into the market will harm the company's reputation and negatively impact customers and the public. Therefore, the team has decided to take the ethical route and ensure that the system is fully functional before launching it.

Conclusion

The ethical decision-making process is an essential tool that helps individuals make ethical decisions. In the case of Traffic Solutions, the team has used the ethical decision-making process to evaluate the alternatives and make the right decision. By delaying the launch of the system and addressing the flaw, the team has acted ethically and ensured that the company's reputation is not compromised. The team's decision to take the ethical route will have a positive impact on the stakeholders and contribute to the company's success in the long run. The team should prioritize safety and transparency in their decision-making process regarding the release of the traffic flow monitoring

system prototype. They should consider the ethical implications of their actions and aim to act in a manner consistent with their personal and professional values. The team should present a plan to address the flaw within a reasonable timeframe and be transparent with investors and the public regarding the flaw and the plan to address it. Ultimately, the team should aim to balance the company's financial goals with their ethical obligations to ensure the safety and well-being of the public.