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Comparative Legal Analysis of Liability Frameworks in Autonomous Vehicle-Accidents in California and Japan

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The rise of self-driving cars marks a significant change in how we travel, offering improved safety, productivity, and ease of usage. Nonetheless, this technological progress poses fresh obstacles in establishing responsibility for crashes and questioning conventional legal structures. This study examined the legal systems for AV accidents in California and Japan, both top regions in autonomous vehicle technology but with unique legal backgrounds. The study compared the liability structures in these areas, focusing on how, each deals with responsibility, safety, and legal obligations. Using comparative, analytical, and qualitative techniques, the study analyseds legislative documents, case precedents, and regulatory structures in both areas. It assesses fault determination, allocation of liability, and compensation processes, while also examining how socioeconomic and cultural factors affect legal systems. The results show notable distinctions: California focuses on product liability due to its technology-focused regulatory strategy, whereas Japan leans towards strict regulatory supervision and driver accountability, stemming from its civil law heritage. Both areas encounter similar obstacles, such as requiring more precise definitions of liability and dealing with ethical issues in autonomous driving. The study concludes that California and Japan are both making progress in regulating autonomous vehicles, but they need to align their standards and improve transparency. Suggestions consist of better data recording and sharing, clearer liability frameworks, increased cybersecurity, public education, and flexible legal mechanisms. These measures are crucial for guaranteeing safety and accountability as AV technology progresses, directing future policy and international harmonization endeavors.

Keywords: Autonomous Vehicles (AVs), legal framework, California and Japan