

Warning Labels and FCC Regulations: The New Legal and Business Frontier for Cell Phone Manufacturers

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INTRODUCTION

Legislators in San Francisco and Maine have recently proposed mandatory cell phone warning labels, which notify consumers of the controversial link between cell phone use and cancer.¹ Such legislative proposals have reignited the public conversation about the health effects of cell phone usage, and have put cell phone manufacturers in a precarious position, from both a business and a legal standpoint.

Over the last two decades, several reputable scientific studies have found a compelling correlation between cell phone use and cancer.² In 1996, the Federal Communications Commission (FCC) responded by imposing a limit on human exposure to cell phone radiation.³ However, despite mounting scientific evidence questioning the safety of cell phone use, the FCC has declined to tighten regulations on cell phone's release of radiofrequency (RF) radiation.⁴ On the surface, cell phone manufacturers appear immune from liability; although there is ample scientific evidence of correlation, "no causal relationship has been established between cell phones and cancer."⁵ And until recently, an "overwhelming majority of studies that have been published in scientific journals around the globe show that wireless phones do not pose a health risk."⁶ The FCC has acknowledged that cell phones serve a valuable

1. Maria L. La Ganga, *San Francisco Considering Cell Phone Warnings*, L.A. Times, December 23, 2009.

2. See, e.g., Peter W. French, et al., *Mobile Phones, Heat Shock Proteins, and Cancer*, 67 DIFFERENTIATION 67 (2001); *Scientists Warn of Mobile Phone Cancer Risk*, THE AGE, Sept. 26, 2008, <http://www.theage.com.au/news/technology/scientists-warn-of-mobile-phone-cancer-risk/2008/09/26/1222217500080.html>; Sara Hoffman Jurand, *Lawsuits Call for More Information on Dangers of Cell Phone Radiation*, TRIAL, July 2005, at 12-13.

3. Guidelines for Evaluating the Environmental Effects of Radiofrequency Radiation, 61 Fed. Reg. 41,006 (1996) (proposed Mar. 1993) (to be codified at 47 C.F.R. pts. 1, 2, 15, 24, 97) [hereinafter FCC Guidelines]. But these standards are not actively enforced as "[m]anufacturers are responsible for testing mobile phones to certify compliance with FCC's exposure limit." U.S. General Accounting Office, 01-545, *Research and Regulatory Efforts on Mobile Phone Health Issues* (May 7, 2001) at 4 [hereinafter GAO Evaluation].

4. Guidelines for Evaluating the Environmental Effects of Radiofrequency Radiation, 12 F.C.C.R. 13494, 13505 ¶ 31 (1997) [hereinafter FCC Upholds Guidelines]. This decision by the FCC was challenged and upheld as being within the discretion of the Commission. See *Cellular Phone Taskforce v. FCC*, 205 F.3d 82, 90-92 (2d Cir., 2000).

5. Victor E. Schwartz, et al., *Can Governments Impose a New Tort Liability Duty to Prevent External Risks? The "No-Fault" Theories behind Today's High-Stakes Government Recoupment Suits*. 44 WAKE FOREST L. REV. 923, 959 (2009).

6. Tara Parker-Pope, *Experts Revive the Debate over Cell Phones and Cancer*, N.Y. TIMES, June 3, 2008, at F5.

social purpose,⁷ and manufacturers are already obligated to follow government guidelines regarding the emission of potentially dangerous radiation. As a result, courts have generally been unreceptive to claims filed against cell phone manufacturers for product liability.⁸

But new scientific studies have demonstrated a stronger link between cell phone usage and cancer, which may pose new obstacles for cell phone manufacturers. Further, in two recent cases, *Pinney v. Nokia, Inc.* and *Murray v. Motorola, Inc.*, the federal circuits have split on the preemptive power of FCC regulations. This paper explores the potential legal and business hurdles facing cell phone manufacturers in light of these circumstances. Part I evaluates the present options for civil litigation against cell phone manufacturers. Part II uses the Ford Motor Company's Pinto car design as a case study to argue that cell phone manufacturers ought to adapt to the challenging legal and business environment.

I. ESTABLISHING LIABILITY: THE PRESENT OPTIONS FOR CIVIL LITIGATION AGAINST CELL PHONE MANUFACTURERS

A. *What Must a Litigant Prove to Recover?*

Should a civil litigant claim that her cell phone caused an adverse health effect, she may file several different types of tort claims, the most prominent of which being a product liability suit. The Third Restatement of Torts lists three major types of product liabilities: manufacturing defect, design defect, and a failure to warn; cell phone companies are most vulnerable to claims of design defect and failure to warn.⁹ In order to prove such a claim, a litigant must show a causal link between the defect or failure to warn and the injury suffered.¹⁰ In addition, a manufacturer has a duty to warn consumers about any inherent risks associated with their products.¹¹ The duty to warn is two fold – a company must warn consumers via instructions for the safe use of their product, or provide a warning label if a product is inherently dangerous.¹² Generally manufacturers bear the legal burden to know if their product is inherently dangerous.¹³ Conversely, if the risk is obvious, or easily appreciated by the average consumer, then courts may not hold a manufacturer liable for

7. See FCC Upholds Guidelines *supra*, note 4.

8. See, e.g., *Reynard v. NEC Corp.*, 887 F. Supp. 1500 (M.D. Fla. 1995).

9. Restatement (Third) of Torts: Product Liability §2-4 (1998).

10. See, e.g., Jeffrey D. Cutler, *Implications for Strict Scrutiny of Scientific Evidence: Does Daubert Deal a Death Blow to Toxic Tort Plaintiffs?* 10 J. Envtl. L. & Lit. 189, 197 (1996).

11. See generally, *Johnson v. American Standard, Inc.*, 179 P.3d 905, 910 (Cal. 2008).

12. *Frey v. Montgomery Ward & Co.*, 258 NW.2d 782, 786 (Minn. 1977).

13. *Anderson v. Owens-Illinois, Inc.*, 799 F.2d 1, 2 (1st Cir. 1986) (noting that under Massachusetts law, sellers of asbestos are required to warn of reasonably foreseeable dangers).

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failure to warn.¹⁴ In total, establishing causation and the duty to warn are of particular importance to cell phone product liability.

The following subsections evaluate (1) the satisfaction of the *Daubert*¹⁵ standard for the admission of expert testimony to prove causation in light of new scientific evidence about the dangers of cell phone use, and (2) the importance of FCC regulations to the duty to warn after *Pinney* and *Murray*.

B. Causation: Satisfying the Daubert Standard for Expert Testimony

In order to prove causation in a cell phone product liability case, a plaintiff normally needs to admit expert scientific testimony, which is generally subject to the *Daubert* standard. Until recently, admission of such evidence under *Daubert* has been near impossible for plaintiffs in cell phone litigation, as there has been no general consensus among the scientific community as to the dangerousness of cell phones.¹⁶ But scientists have begun to recognize a more substantial link between cell phone use and adverse health effects, such as cancer, making admission of expert testimony more likely going forward.¹⁷

Cell phones operate by transmitting a type of electromagnetic radiation through electrical signals sent from an antenna to a cellular transmitter tower.¹⁸ This radiation is in the form of radiofrequency (RF) energy.¹⁹ At high frequencies, RF radiation can cause serious bodily injury; however cell phones use a very low frequency RF radiation.²⁰ The type of RF radiation emitted by cell phones is a form of non-ionizing radiation.²¹ Non-ionizing radiation like that emitted by cell phones was once considered to be harmless to humans.²² But many studies have since linked low frequency radiation to health defects such as cancer.²³ Furthermore, studies from across the globe have suggested a strong link between cell phone usage and cancer.²⁴

In *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, the Supreme Court laid

14. See, e.g., *Carey v. Lynn Ladders and Scaffolding Co.*, 691 N.E.2d 223, 224 (1998).

15. *Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579 (1993).

16. See *Parker-Pope*, *supra* note 6.

17. Christopher Ketcham, *Warning: Your Cell Phone May be Hazardous to your Health*, GQ, Feb. 2010 (noting that cell phone use has increasingly alarmed the rest of the world, citing three recent studies overseas indicating that cell phone use may lead to sleeplessness, a change in metabolism, and cancer).

18. GAO Evaluates, *supra* note 3, at 1.

19. *Id.*

20. *Id.*

21. Roy W. Krieger, *On the Line*, 80 A.B.A.J. 40, 41 (1994).

22. Laura Grasso, *Cellular Telephones and the Potential Hazards of RF Radiation: Responses to the Fear and Controversy*, 3 VA. J.L. & TECH. 2, 6 (1998) (citing Rufus C. Young, Jr. et al., *Update: Electromagnetic Field and Their Land Use Implications*, A.L.I.-A.B.A., COURSE OF STUDY, Aug. 16, 1995, at 1501).

23. Jonathon Marshall, *Cell Phones Linked to Cancer in Mice; Radiation Study Finds Twice the Normal Rate*, S.F. CHRON., May 9, 1997, at A1.

24. See Ketchman, *supra* note 17.

out several criteria a court ought to analyze when considering the admission of scientific evidence into court: (1) whether the theory can be, or has been, tested, (2) whether the theory has been subjected to peer review, (3) whether the theory has a high rate of error, or (4) whether the theory has been generally accepted in the scientific community.²⁵ Recent scientific studies done overseas, which have been exposed to peer review through scientific journals, may change the court's opinion on the first two prongs of *Daubert*. In September of 2007, the European Environment Agency warned that cell phones may lead to a serious health crisis similar to those caused by smoking, or asbestos.²⁶ Further, an expansive study done by the researchers at the multinational organization Interphone found that individuals who used cell phones for over a decade increased their risk of cancer by forty percent.²⁷ Another study in Sweden found that individuals who start using cell phones before age twenty are five times as likely to develop a brain tumor.²⁸ Despite the general lack of substantive evidence among American researchers, multiple international studies have tested the health effects of cell phone use, exposed these tests to peer review, and found a receptive audience abroad.²⁹ This poses a serious problem for cell phone manufacturers going forward – if international studies continue to demonstrate a link between RF radiation and adverse health effects, there is a strong likelihood courts will more frequently admit such evidence under the *Daubert* standard for expert testimony.

C. Duty to Warn: The Effect of FCC Regulation on Liability After Pinney and Murray

Even if cell phone litigants can meet the *Daubert* standard, they still must contend with a serious barrier to state-level litigation: the federal preemptive power of the FCC standards provided by The Telecommunications Act of 1996, which established a reasonably comprehensive regulation of the emission of cell phone regulations.³⁰ Two provisions in particular, 47 U.S.C. §§ 332(c)(7)(B)(iv) and 332(c)(3)(A), speak of the preemptive power of FCC

25. *Daubert*, 509 U.S. at 593-94. It is worth noting that the *Daubert* standard gives ultimate power to the judge to determine whether expert evidence is admissible. Although the Supreme Court laid out many important facts that may be considered when determining what expert testimony is admissible in court, the judge has the ultimate authority to admit or deny expert evidence based upon her assessment of the scientific validity of the testimony. David L. Faigman & John Monahan, *Psychological Evidence at the Dawn of Law's Scientific Age*, 56 ANNU. REV. PSYCHOL. 631, 632 (2005). This Article uses the Supreme Court's recommended factors in order to assess how a judge may react to the evolving scientific evidence regarding the dangerousness of cell phones.

26. See Ketchman, *supra* note 17.

27. *Id.*

28. *Id.*

29. *Id.*

30. Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56 (1996) [hereinafter Telecommunications Act].

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regulations.³¹ As a result, previous litigation against cell phone manufacturers has generally been removed to federal court.³² Federal courts typically view the Telecommunications Act as preempting product liability claims against cell phone manufacturers. But two recent cases, *Pinney v. Nokia*³³ and *Murray v. Motorola, Inc.*,³⁴ exemplify the evolving federal doctrine on the preemptive power of FCC regulations. *Pinney* and *Murray* demonstrate that compliance with federal regulations may no longer immunize cell phone manufacturers from litigation.

In *Pinney v. Nokia, Inc.*, the plaintiffs brought a suit against Nokia for knowingly exposing consumers to dangerous levels of radiation without providing a headset.³⁵ The *Pinney* case raised two preemption issues: (1) whether FCC regulations preempted litigation about the dangerousness of cell phone radiation levels that met federal standards, and (2) whether these claims raised a substantial federal question as to necessitate removal to federal court. Regarding the first issue, the plaintiffs argued that Nokia ought to be held strictly liable for design defects that lead to unsafe emissions of RF radiation, despite the existence of federal regulations.³⁶ Nokia responded that its compliance with FCC regulations for RF radiation determine whether the product is unreasonably dangerous.³⁷ After all, if Nokia was abiding by government safety regulations, surely the company was exercising reasonable care. The district court sided with the cell phone manufacturers and held that “the case cannot be resolved without proving that the FCC’s RF radiation emission standards are too high to protect the consuming public.”³⁸ Hence, any claim in state court challenging cell phone manufacturers who followed federal regulations would be improper. But the Fourth Circuit reversed and held that under Georgia, Maryland, and New York law, compliance with federal regulations was “only one factor in assessing whether a wireless telephone is unreasonably dangerous under the risk-utility standard.”³⁹ While compliance

31. 47 U.S.C.S. § 332(c)(7)(B)(iv) (LexisNexis 2010) provides in part that, “No State or local government or instrumentality thereof may regulate the placement, construction, and modification of personal wireless service facilities on the basis of the environmental effects of radio frequency emissions to the extent that such facilities comply with the [Federal Communications] Commission’s regulations concerning such emissions.” Additionally, § 332(c)(3)(A) states that, “[N]o State or local government shall have any authority to regulate the entry of or the rates charged by any commercial mobile service or any private mobile service, except that this paragraph shall not prohibit a State from regulating the other terms and conditions of commercial mobile services.”

32. See, e.g., *In re Wireless Tel. Radio Frequency Emissions Prod. Liab. Litig.*, 216 F. Supp. 2d 474 (D. Md., 2002) (finding that litigation challenging the safety of cell phones which met federal regulations raised a substantial question), *rev’d*, *Pinney v. Nokia*, 402 F.3d 430 (4th Cir. 2005).

33. *Pinney v. Nokia*, 402 F.3d 430 (4th Cir. 2005).

34. *Murray v. Motorola, Inc.*, 982 A.2d 764 (D.C. 2009).

35. *Pinney*, 402 F.3d at 440.

36. *Id.* at 446.

37. *Id.*

38. *Id.* at 459 (Kiser, J., dissenting).

39. *Id.* at 446.

with a federal regulation can be a persuasive indication that a cell phone company exercised reasonable care, such compliance is not dispositive.⁴⁰

The *Pinney* court also addressed whether these claims raised a substantial federal question to necessitate removal to federal court. Previously, courts removed RF radiation related lawsuits against cell phone manufacturers to federal court since these suits were seen as challenges to the sufficiency of FCC regulations, thereby raising federal question jurisdiction.⁴¹ But today, there is a growing trend to deny removal, as demonstrated by the holding in *In re Wireless*.⁴² *Pinney* continued this trend. Nokia attempted to remove the litigation to federal court, but was denied by the majority's finding that there was no substantial federal question.⁴³ The defendants were accused of violating state, not federal law.⁴⁴ Hence, the court determined that any argument by Nokia regarding compliance with federal regulations raised a *defense* to these claims.⁴⁵ Such a defense does not itself implicate a substantial federal question, according to the court.

Conversely, Nokia claimed that the plaintiffs raised a federal question since they (either implicitly or explicitly) challenged the *sufficiency* of the FCC regulations.⁴⁶ Any attempt to invalidate a federal regulation "arises under" federal law.⁴⁷ According to the dissent, plaintiffs were challenging the sufficiency of the FCC regulations, and their claim therefore arises under federal law,⁴⁸ triggering federal question jurisdiction.⁴⁹ Thus, the dissent viewed the plaintiffs' claims as a veiled attempt to invalidate or discredit a federal regulation; such claims are generally afforded federal jurisdiction.⁵⁰ The dissent pointed to the plaintiff's complaint, which "purport[s] to attack the FCC regulations."⁵¹ The dissent argued that "[t]his thinly-disguised attack on the validity of the FCC standards raises a substantial federal question."⁵²

Another similar case, *Murray v. Motorola, Inc.*, held that any state regulation that would attempt to alter the FCC standard was federally

40. *Id.*

41. *See, e.g., In re Wireless Telephone Radio Frequency Emissions Product Liability Litigation*, 216 F. Supp. 2d 474 (D. Md., 2002) (finding that litigation challenging the safety of cell phones which met federal regulations raised a substantial federal question), *rev'd, Pinney*, 402 F.3d 430.

42. *See, e.g., In re Wireless Telephone Radio Frequency Emissions Products Liability Litigation*, 327 F. Supp. 2d 554 (D. Md. 2004) (denying removal of state claim against cell phone manufacturer on basis of a substantial federal question).

43. *Pinney*, 402 F.3d at 459.

44. *Id.* at 446.

45. *Id.*

46. *Id.* at 459.

47. *See Cahnmann v. Sprint Corp.*, 133 F.3d 484, 488 (7th Cir. 1998).

48. *Pinney*, 402 F.3d at 459 (Kiser, J., dissenting).

49. *Id.* at 460.

50. *Id.* at 459.

51. *Id.*

52. *Id.*

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preempted under conflict preemption.⁵³ This holding directly conflicts with at least one key Fourth Circuit holding in *Pinney*. In *Murray*, the plaintiffs brought a class action suit against Motorola alleging that Motorola phones caused physical injuries due to high levels of RF radiation.⁵⁴ There the court held that, “verdicts that would hold defendants liable for damages for bodily injuries caused by cell phones that met the FCC RF radiation limit ‘would necessarily upset [the] balance [the agency struck] and . . . contravene the policy judgments of the FCC regarding how safely and efficiently to promote wireless communication.’”⁵⁵ Hence, the court in *Murray* believed that product liability cases against cell phone manufacturers were barred from litigation in federal court under the doctrine of conflict preemption. According to the *Murray* court, so long as cell phone manufacturers obey federal regulations that seek to “provide a proper balance between the need to protect the public . . . from the exposure to excessive RF electromagnetic fields and the need to allow communications services to readily address the growing marketplace demands,” cell phone manufacturers bear no liability for the harms caused by such RF radiation.⁵⁶ Put simply, the court in *Murray* held that compliance with the federal law definitively demonstrated that cell phone manufacturers exercised reasonable care.

By contrast, the Fourth Circuit in *Pinney* reasoned that conflict preemption does not bar a litigant from suing a cell phone manufacturer for physical harm done by cell phone RF radiation that complied with FCC regulations.⁵⁷ Unlike *Murray*, the *Pinney* court narrowly defined focus of FCC standards as attempts to regulate nationwide service coverage.⁵⁸ According to the *Pinney* court, the FCC regulations do not demonstrate a congressional objective to establish a preemptive national standard for RF radiation.⁵⁹ Both courts examined the language and congressional history of the FCC regulations, but came to different conclusions as to their preemptive value.

In summary, the *Murray* and *Pinney* cases demonstrate two important trends. First, while the existence of FCC regulations was previously dispositive proof of a substantial federal question, cell phone manufacturers can no longer expect to have all litigation removed to federal court after *Murray*, *Pinney*, and *In re Wireless*. Second, the overall federal preemptive value of FCC regulations is questionable after the circuit split in *Murray* and *Pinney*.

53. *Murray v. Motorola*, 982 A.2d 764, 776 (D.C. 2009).

54. *Id.* at 769.

55. *Id.* at 777 (quoting Brief for FCC as Amicus Curiae Supporting Appellees, *Murray*, 982 A.2d 764 (D.C. 2009)).

56. *Id.* at 776 (quoting Guidelines for Evaluating the Environmental Effects of Radiofrequency Radiation, 12 F.C.C.R. 13494, 13497, ¶ 5 (1997)).

57. *Pinney*, 402 F.3d at 457.

58. *Id.*

59. *Id.* at 457-58.

II. POSSIBLE BUSINESS SOLUTIONS FOR CELL PHONE MANUFACTURERS

This section argues that cell phone manufacturers can address these concerns head-on through taking two steps: (1) manufacturers should voluntarily provide warning labels on the packaging of their products, and (2) manufacturers should invest significant resources in R&D to promote the use of affordable and marketable headset technology that can be coupled with their product to improve safety. This section will also use the consumer backlash after the Ford Pinto disaster⁶⁰ as a case study to demonstrate the importance of transparency and brand image. By following these recommendations, cell phone manufacturers may be able to profit from an increasingly volatile business and legal environment.

A. Manufacturers Should Voluntarily Incorporate Warning Labels into Packaging

Cell phone manufacturers should seriously consider the integration of voluntary warning labels into packaging. In this regard, cell phone manufacturers can learn from the mistakes of the Ford Motor Company in their handling of the Pinto.

When the Ford Motor Company designed the Pinto, “the federal government had no standards concerning how safe a car must be from gas leakage in rear-end crashes.”⁶¹ But, as Ford continued to research the safety of the Pinto, designers realized that the vehicle was susceptible to significant fuel leakage, which could lead to the ignition of the passenger compartment during certain accidents.⁶² Ford calculated that the cost of fixing this design flaw would be prohibitive; since the company already met all federal safety regulations, the production of Pintos continued uninterrupted.⁶³ Ford also believed that, since the company followed all pertinent federal regulations, they would not be susceptible to serious liability. Unfortunately, this calculation ignored a pivotal detail – consumers were exposed to serious risk of death or bodily injury above and beyond that ordinarily undertaken by an automobile driver because Ford failed to disclose this design defect to the consumer. Ultimately, a California jury assessed \$125 million verdict against Ford for design flaws in the Pinto.⁶⁴ Ford also faced massive public backlash, which adversely affected the company’s brand image.

60. See Dekkers L. Davidson, *Managing Product Safety: The Ford Pinto*, HARVARD BUSINESS SCHOOL, May 1, 1984.

61. *Id.* at 5.

62. *Id.*

63. *Id.*

64. *Id.* at 8. This verdict was eventually lowered to \$3.5 million, although Ford faced another \$20 million in settlements with the National Highway Transportation Safety Authority to replace the fuel filler pipe in all Pintos. *Id.* at 9.

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Cell phone manufacturers are presently facing a similar dilemma. The information asymmetry between consumers and cell phone manufacturers regarding the available scientific evidence may place the impetus upon the manufacturers to warn consumers about any inherent dangers with their products. Further, cell phone companies, according to *Pinney*, may not be able to rely on FCC regulations to absolve themselves of responsibility. Thus, cell phone manufacturers could benefit from taking the unusual step of adding a warning label to the packaging of their products. In order to be legally effective, a warning label should identify the potential hazards, supply information to avoid the hazard, and plainly communicate the information.⁶⁵ But once added, a warning label would force consumers to accept the risk of using the product: “in the simplest form, assumption of risk means that the plaintiff has given consent to relieve the defendant of an obligation to exercise care for his protection, and agrees to take his chances as to injury from a known and possible risk.”⁶⁶

Using this standard, a warning label on the packaging of a cell phone need not judge the device as imminently dangerous (the scientific community remains divided on this point, after all). Instead, a warning would need to merely inform consumers that there is debate amongst the scientific community over the long-term health effects of cell phone use. The warning should also recommend the use of speakerphone functionality or a headset device to keep radiation from being emitted near an individual’s body. This would also satisfy the two-fold common law duty to warn under *Frey v. Montgomery Ward*, by advising consumers of both the inherent risk and possible steps to use cell phones safely.⁶⁷

Further, companies that use such an honest label, coupled with complimentary wired headsets, could be viewed as consumer friendly. Often companies with close competitors will benefit from specializing in products that appeal to “different types of consumers, thereby reducing their strategic independence.”⁶⁸ Some manufacturers like Motorola, who have struggled to differentiate themselves amidst a competitive smart phone market,⁶⁹ could use the inclusion of warning labels to benefit brand image and capture a safety-conscious segment of the cell phone market. In this way, select manufacturers

65. Sara K. Ledford, *The Implications of Kumho Tire: Applying Daubert Analysis to Warning-Label Testimony in Product Liability Cases*, 76 INDIANA L. J. 465, 479 (2001).

66. Restatement (Second) of Torts § 496(A) cmt. (c)(1).

67. *Frey*, 258 NW.2d at 786 (describing the duty to warn).

68. Richard J. Gilbert and Carmen Matutes, *Product Line Rivalry with Brand Differentiation*, J. OF INDUSTRIAL ECON. Vol. 21, No. 3, Sept. 1993, at 224.

69. See, Matt Richtel, *Motorola Scrambles to Restore Its Lost Cellphone Glory*, NY TIMES, May 1, 2009 at B1 (noting that Motorola has seen declining market share and profitability due to an inability to differentiate itself and remain competitive in the smart phone market).

could turn a potential crisis into a competitive advantage.⁷⁰

B. Manufacturers Should Invest Heavily in R&D to Combat These Developing Issues

Next, cell phone manufacturers should consider increasing investment into R&D to develop technology that limits human exposure to radiation, such as headsets and improved speakerphone functionality.

Again, the decisions made by Ford regarding the development of the Pinto are instructive in the present case. After Ford discovered that the placement of the fuel tank in the Pinto made the automobile susceptible to fuel leakage, Ford's R&D department presented the company with some minor design changes that could improve the safety of the automobile – “an over-the axle gas tank, a repositioned spare tire, the installation of body rails, a redesigned filler pipe, and an ‘innertank’ rubber bladder”⁷¹ Ford rejected the first four suggestions as too expensive, but the rubber lining within the gas tank received serious consideration.⁷² Ultimately, Ford declined the use of an “innertank” rubber bladder because it could become stiff during cold weather, which would make gas filling difficult for consumers.⁷³ At the time, Ford felt that the decision was the best business move since the cost of any potential litigation, they calculated, would be far less than the cost of making design alterations.⁷⁴ But Ford failed to consider the crippling damage the company's brand would face due to the negative media coverage.

Cell phone manufacturers face a similar, albeit slightly distinguishable set of challenges. Unlike the Pinto, there is no easy way to prevent cell phones from emitting RF radiation. The emission of RF radiation is functionally necessary for a cell phone to properly operate. But, like the Pinto example, cell phone manufacturers do have affordable technological options, which may facilitate the safe use of cell phones without dramatically changing the design of the product: headsets and speakerphone functionality. According to the American Cancer Society, speakerphone and headset technology reduce the risk of exposure to RF radiation.⁷⁵ Manufacturers should strongly consider

70. Johnson & Johnson's handling of the 1982 Tylenol Poisonings is a poignant example of a previous company utilizing such a strategy. See generally, Mark L. Mitchell, *The Impact of External Parties on Brand-Name Capital: The 1982 Tylenol Poisonings and Subsequent Cases*, ECONOMIC INQUIRY, Vol. XXVII, 601-618, October 1989.

71. Davidson, *supra* note 60, at 6.

72. *Id.*

73. *Id.*

74. *Id.*

75. Rebecca Viksnins Snowden, *More Research on Cell Phone Safety Needed, Experts Say*, AMERICAN CANCER SOCIETY, Sept. 22, 2009, http://www.cancer.org/docroot/NWS/content/NWS_1_1x_More_Research_on_Cell_Phone_Safety_Needed_Experts_Say.asp.

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including wired headsets and speakerphone functionality in all cell phones to give consumers the option to use the cell phone in a safer manner. Further, including such technology with every cell phone, while imposing an immediate financial obligation, could pay long-term dividends, as it would limit legal liability going forward.

CONCLUSION

With new scientific research demonstrating a persuasive link between cell phones and cancer, manufacturers must be prepared to adjust to a new business and legal environment. Cell phones serve a valuable social purpose, connecting individuals in a way never before imagined. Nonetheless, after *Pinney*, compliance with FCC regulations may no longer be enough to immunize cell phone manufacturers from liability. Manufacturers must become proactive in their approach to public safety, in order to avoid future litigation. Thus far, manufacturers have generally opposed the inclusion of warning labels. While such a reaction seems intuitive, manufacturers may be advised to actively address the potential risks of cell phones by readily providing available scientific information to consumers and giving consumers the tools such as headsets to use cell phones safely. This approach would allow cell phone manufacturers to avoid long-term financial loss and it may even help some manufacturers differentiate themselves in a way that capitalizes on this potential crisis.