The Rise and Fall of Kodak: A Case Study on Market Shifts and Business Strategy

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By

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Abstract:

This thesis examines the history of Kodak's rise as a photography giant and its inability to adapt to the digital revolution. Despite its achievements in roll film and the Brownie camera, Kodak's dependence on film hindered its development into digital photography and led to its decline.

The paper examines Kodak's strategic failures, including its delayed commercialization of digital technology and ineffective diversification. It discusses the company's corporate culture, leadership challenges, and resistance to change, particularly the actions of the "Film Mafia." It also covers its intellectual property strategy, patent portfolio, and lawsuits.

The main conclusions highlight the importance of embracing disruptive technologies, innovation, and adaptive leadership. The thesis concludes with recommendations for Kodak's future, such as digital solutions, sustainability, and customer engagement. Kodak's story is offered as a cautionary tale for businesses confronted with technology disruption, highlighting the significance of adaptability and innovation.

Introduction:

Company Background & Significance

Founded as the Eastman Dry Plate Company in 1881 and later renamed the Eastman Kodak Company in 1892, Kodak quickly became a significant player in the photographic industry. The company's invention of roll film made photography accessible to the mass market, making it easy to use and more convenient compared to the cumbersome glass plates previously required to capture images (Kinsley & Stothert-Maurer, 2024). This ease was further emphasized when the company introduced the Brownie camera in 1900, which was relatively inexpensive and easy to use, allowing millions of people to capture their memories. Kodak's slogan, "You press the button, we do the rest," encapsulated its mission to simplify photography for everyone.

Throughout the 20th century, Kodak remained the dominant force in the photography industry. Its focus on quality and innovation solidified its position as the face of photography. The company's extensive research and development in film technologies has yielded numerous advances in the field, solidifying its position as an industry leader. The company excelled in consumer photography and made substantial contributions to professional and scientific imaging, including medical and space imaging.

Kodak's business model was quite successful. First, it was highly focused on film and photographic paper, consumable products that would continue to generate profit for the company (Lucas & Goh, 2009). The company also invested heavily in marketing and brand building (Kodak, n.d.), creating a strong emotional connection with consumers through memorable advertising campaigns and sponsorships.

However, despite Kodak's early success and market leadership, it faced significant challenges as the digital era emerged. Digital photography and rapid technological advancements disrupted the traditional film-based photography business. This case study seeks to answer the question, "Why did Kodak, a once-dominant industry leader, fail to successfully transition into the digital era?"

Context & Scope

Industry Trends

This case study focuses primarily on post-1980 Kodak, a period marked by the emergence of digital photography and the ensuing decline of film photography. Film-based photography generated revenue from various sources, making it highly profitable. First, film rolls were consistently sold to consumers, as the film was required to capture images, and each roll had a limited number of exposures, prompting further purchases. Moreover, substantial income resulted from developing and printing photographs. Both photographers and consumers paid for film development and printing services, often requesting multiple copies or enlargements.

Additionally, professional photographers earned income by selling physical prints, albums, and framed pictures, all of which were valued for their quality and durability. Furthermore, film-based photography required specific equipment, such as cameras, lenses, and darkroom supplies, fostering a significant market for photographic gear. Companies like Kodak capitalized on this demand by offering a broad range of products and services for amateur and professional users (Vinokurova & Kapoor, 2023). The constant purchases of film, development, and printing fees, and the sales of high-margin photographic equipment, made film-based photography exceptionally lucrative.

The photography industry underwent significant changes in the late 20th and early 21st centuries, propelled by several key trends. Among those, one of the most pivotal was digital photography. In the 1990s, the invention of digital cameras introduced a different world from traditional film-based photography. The numerous advantages of digital cameras, including instant image review, storage of thousands of photos on a single memory card, and the convenience of sharing images electronically, quickly drew consumers and professionals alike away from film and film-based cameras. The key to this transition was the development of technologies. Advances in sensor technology, image processing, and storage capabilities have gradually reduced costs, making digital cameras more affordable and accessible to a broader audience. This has also been accelerated by the integration of smartphones with high-quality cameras. As a result, the behavior of consumers in preserving and sharing memories underwent a drastic shift to favor digital solutions (Christensen, 1997). When was the last time you saw someone using a film camera? If you were born in the early 2000s, like me, it's likely never.

Then again, changing consumer behavior helped the industry. Digital photography has brought convenience and instant gratification, aligning with the rapid growth of social media and online sharing sites. Consumers increasingly preferred instant results and the opportunity to share experiences as they happened. This behavioral shift presented significant problems for traditional film companies, such as Eastman Kodak, whose business model was built on conventional film and prints.

Scope of Case Study

This case study will examine specific periods in the company's history and various aspects of Kodak to provide a comprehensive analysis of the challenges faced and the strategic responses. The two most significant periods of concern are the late 20th century and the early 21st century, pivotal times when substantial disruptions caused by the rise of digital technology severely impacted the company's fortunes.

The key concerns regarding the organization will be

Market Disruption: This section examines Kodak's dramatic shift in the photography industry, highlighting how the once-dominant force faced significant challenges from the emergence of digital photography. Initially in a leading position, Kodak struggled to adapt to rapid

technological changes and shifting consumer preferences, failing to balance innovation with its traditional strengths. Its reluctance to fully embrace digital technology led to a decline, emphasizing the importance of adaptation and the consequences of resisting disruptive innovations.

Response to Digital Photography: This section examines industry reactions to digital photography. It highlights Kodak's initial investment in digital technology, yet its hesitation to embrace it stemmed from fears of harming its film business. Conversely, competitors such as Fujifilm, Sony, Canon, and Nikon swiftly adapted by investing in digital imaging and diversifying their product offerings. This analysis highlights the importance of dynamic capabilities in adapting to technological changes, demonstrating that Kodak's decline stemmed from its reluctance, while its competitors thrived.

Decision-Making Strategies and Failures: This section examines Kodak's strategic missteps, highlighting missed opportunities and resistance to change. Delays in the commercialization of digital photography and failed ventures in pharmaceuticals and inkjet printing stemmed from a reluctance to disrupt its core business and an overestimation of its expertise. Kodak's failure to adapt to technological shifts and its corporate arrogance led to missed opportunities, such as Ektachem and xerography, while also underestimating competitors like Fujifilm. These failures reveal Kodak's struggle to balance innovation with its traditional business model, ultimately contributing to its decline.

Strategic Leadership: This section examines Kodak's leadership after 1980 and its role in the company's decline. The CEOs—Chandler, Fisher, Carp, Pérez, and Clarke—pursued conflicting strategies, creating divisions within the company. Chandler focused on film, while Fisher and Carp struggled with the transition to digital. Pérez's failed inkjet venture drained resources, further fracturing Kodak's culture and dividing supporters of film and digital. This conflict, combined with Kodak's inability to balance its core strengths and innovation, ultimately led to bankruptcy in 2012.

Marketing Efforts: This analysis examines how Kodak's marketing efforts contributed to its decline by resisting the adoption of digital photography. Although Kodak pioneered the digital camera, campaigns like "Share Moments. Share Life." focused on nostalgia rather than digital innovation. Financial interests in high-margin film products led to outdated strategies, whereas competitors such as Sony and Canon adopted digital advancements. This disconnect from changing consumer preferences ultimately weakened Kodak's market position.

Intellectual Property Strategy: This analysis examines Kodak's strategy for protecting and monetizing its intellectual property (IP) and its impact on the company's financial trajectory. Kodak's patent portfolio in film, digital imaging, and advanced technologies was a key component of its business strategy, generating over \$3 billion through licensing and utilizing litigation to defend and secure its revenue. However, its reliance on licensing and litigation, along with a failure to leverage innovations for internal growth and digital transformation,

diminished its competitive position. Although Kodak achieved short-term financial gains, its inability to adapt to digital disruption led to a decline in market dominance and, ultimately, its bankruptcy in 2012.

Following the scope outlined above, this paper examines the factors surrounding Kodak, showcasing its role in the Digital Revolution. By examining Kodak's journey, we uncover the challenges that established companies face when confronted with disruptive technologies. We highlight the strategic agility and cultural adaptability essential for survival during these transformative periods. Insights from Kodak's experiences provide valuable guidance for modern businesses navigating similar changes in today's fast-paced technological landscape.

Guiding Theories and Scholarly Perspectives

To understand Kodak's rise, dominance, and subsequent decline, it is essential to apply several fundamental theories from the fields of innovation management, organizational behavior, and strategic leadership. This case study employs a range of academic frameworks to evaluate Kodak's responses to technological disruptions, strategic decisions, and cultural challenges.

Firstly, Clayton Christensen's (1997) theory of Disruptive Innovation offers a crucial perspective on how digital photography, initially viewed as inferior to traditional film, transformed the photographic industry. Christensen's concept of the Innovator's Dilemma illustrates why leading companies, often committed to sustaining innovations, can struggle to embrace disruptive technologies that may initially appear less profitable. Despite being a pioneer in digital photography, Kodak's hesitance to commercialize this technology exemplifies this dilemma.

Another significant contribution to this analysis comes from Chesbrough's (2003) theory of Open Innovation. Chesbrough posits that firms should not rely solely on internal research and development but must actively seek external partnerships to enhance innovation. Kodak's insular culture and its failure to engage in external collaborations while developing digital solutions significantly diminished its ability to compete against more agile rivals, such as Sony and Canon.

An additional dimension is explored through Tushman and O'Reilly's (1996) Ambidextrous Organization theory, which emphasizes the importance of firms exploiting their existing capabilities while simultaneously exploring new opportunities. Kodak's excessive focus on film technology, at the expense of digital exploration, reflects a lack of organizational ambidexterity, resulting in strategic inertia amid significant technological changes.

The concept of Path Dependence, introduced by David (1985), also plays a vital role in this discussion. Path Dependence theory illustrates how early investments and successes can confine firms to established routines that hinder innovation and adaptation. Kodak's entrenched identity in film photography created both psychological and strategic barriers, leading to continual delays in pursuing digital opportunities.

Teece's (1997, 2010) Dynamic Capabilities framework further assesses Kodak's strategic responses. Teece argues that firms must sense, seize, and transform in reaction to rapidly shifting environments. Despite possessing the necessary technologies, Kodak's failure to realign its competencies towards digital imaging signifies a breakdown in dynamic capabilities.

Theories of organizational behavior also shed light on Kodak's internal challenges. Hannan and Freeman's (1984) model of Organizational Inertia elucidates how established firms resist change due to rigid structures and ingrained routines. Kodak's reluctance to alter its product offerings, despite the need to accommodate critical customer demands, highlights significant structural inertia.

March's (1991) Exploration and Exploitation theory provides a framework for understanding Kodak's strategic decisions. The firm's overemphasis on capitalizing on its lucrative film business, while neglecting the exploration of innovative digital options, left it vulnerable to rapidly evolving market conditions.

In analyzing Kodak's diversification failures, relevant frameworks include Penrose's (1959) Theory of the Growth of the Firm and Henderson and Clark's (1990) Architectural Innovation theory. Kodak's ill-fated ventures into pharmaceuticals and inkjet printing exemplify the risks of assuming that foundational competencies in one area can be easily transferred to another, particularly when essential knowledge structures diverge significantly.

Moreover, Tripsas and Gavetti's (2000) insights on Cognitive Inertia are crucial for understanding Kodak's sluggish response to emerging competitive threats, particularly from Fujifilm. The organizational mindset at Kodak, shaped by prior successes, hindered leadership's ability to envision alternative futures even as signs of industry transformation became increasingly apparent.

Finally, this case study incorporates organizational culture theories (Schein, 2010) to expose internal resistance, particularly the impact of the so-called "Film Mafia"—Kodak executives and employees deeply committed to maintaining the film business, who impeded substantial innovation.

Collectively, these theoretical frameworks establish a robust analytical foundation for this case study, offering insights into why Kodak, despite its technological foresight, ultimately fell victim to the disruptive forces it had initially played a crucial role in creating. They underscore the intricate relationships between technology, leadership, strategy, and organizational culture that shaped Kodak's trajectory.

History of Kodak

Founding and Early Years

Kodak, originally the Eastman Dry Plate Company, was founded in 1881 by George Eastman, an inventor and entrepreneur who democratized photography. With the invention of the first roll-film hand camera in 1888, "the Kodak" camera revolutionized photography by utilizing image-capturing film. This significant product replaced the cumbersome glass plates previously used in cameras (Kinsley & Stothert-Maurer, 2024), rendering dry plate technology obsolete and leading to the company's rebranding as the Eastman Kodak Company. As photography became more accessible, it allowed the masses to take it up as a hobby.

By the turn of the century, in 1900, Kodak launched the Brownie camera—an inexpensive, straightforward camera that brought photography to the masses. The Brownie was also simple to use and affordable at \$1 (\$37.57 in today's dollars), making photography accessible to everyone. It is estimated that a quarter of a million Brownie Cameras were sold, and in that regard, Kodak achieved its mission most concisely in the slogan, "You press the button, we do the rest."

Key Milestones and Innovations

Throughout the 20th century, Kodak continued to innovate and lead the photography industry. Some key milestones and innovations include the following:

- 1888: Introduction of the Kodak camera, the first camera designed for roll film.
- 1900: The launch of the Brownie camera made photography more affordable and accessible.
- 1935: Introduction of Kodachrome film, the first commercially successful color film.
- 1963: Launch of the Instamatic camera, which used easy-to-load film cartridges and became extremely popular.
- 1975: Steven Sasson, an engineer at Kodak, developed the first digital camera, which was not commercialized at the time.

Kodak's significant investment in research and development led to numerous advancements in film technology (Lucas & Goh, 2009), including increased speed, improved color accuracy, and enhanced durability.

Kodak's Dominance in the Film Industry

Kodak's business model was brilliant; it focused on film and photographic paper. Patrons would return for these consumable products to use their cameras, generating recurring revenue. "When I was there, we had 110,000 employees worldwide, and 75% of them were in Rochester," (Participant 1, personal communication) recalled one former Kodak employee. "The revenue streams from consumer photography alone were between \$30 and \$35 billion in sales every year" (Participant 1, personal communication). This vast scale kept Kodak dominant in its industry.

Beyond strong revenue streams, Kodak also established an extensive infrastructure to support its large international operation. "Our distribution center in Rochester alone was 17 football fields under one roof. That's what we needed to do to support our business units" (Participant 1, personal communication). Its far-reaching and well-developed network meant Kodak was practically in every market, maintaining over 80% of the U.S. market share.

One of Kodak's business model's strong points was its consistent ability to generate revenue through film sales. It functioned as a renewable resource business model as long as the technology remained unchanged; the money flowed, explained a former executive. However, this stability became an apparent weakness when technological advancements began to challenge the traditional presentation of film (Christensen, 1997).

Despite its early successes and market dominance, Kodak struggled immensely to keep up with the rise of digital photography. In an interview, one former employee commented on the technological shift: "Technology is good for some things, but it does ruin other things" (Participant 1, personal communication). While Kodak invented digital photography in the 1970s, the company was unable to abandon film.

When digital photography started to take off, Kodak's reluctance to change its business model proved costly. "Things change, and if you don't have the wherewithal to change or the ability to change with them, that revenue stream eventually goes away" (Participant 1, personal communication). Kodak's (n.d.) inability to adapt quickly led to its eventual decline in the photography market.

Market Disruption

Photography had been a ritual for over a century—a tangible, methodical process of capturing moments that required patience, skill, and a physical connection between the photographer and the image. Kodak, the master architect of this world, built an empire on film photography, transforming the act of taking and developing pictures into both an art form and a commercial necessity. However, in the final decades of the 20th century, chaos was on the horizon, and it would dismantle the very foundation of Kodak's existence.

The rise of digital photography represented not just an innovation but a true revolution. As Clayton Christensen (1997) describes in his theory of disruptive innovation, disruptive technologies emerge at the low end of the market, initially catering to less-demanding consumers. Although digital imaging was initially perceived as inferior to film in terms of quality, it eventually surpassed film by meeting the needs of a broader and more cost-conscious market. Unlike earlier technological advancements, which had complemented film photography, digital imaging seriously threatened its existence. This fundamental transition was not merely about convenience, but about redefining the industry's standards; Christensen argues that this is a defining characteristic of disruptive technologies.

The chemical-laden, time-consuming film development process was superseded by an instant, cost-effective method for capturing and sharing images. Chesbrough's (2003) Open Innovation theory further illustrates this: Kodak's failure to engage with external sources of innovation, particularly in partnerships with emerging digital camera companies or technology firms, affected its ability to respond effectively to the disruption, ceding market leadership to competitors willing to take a chance on the new market. With digital media, photos have become limitless, no longer constrained by the number of exposures on a film roll or the costs of developing prints. While Kodak did invest in digital imaging research, it focused more on traditional film-related operations than on partnerships and market-driven innovation. This resistance to collaborate, emphasizing traditional film while neglecting market trends, was a serious oversight for Kodak.

The appeal was immediate for consumers. Digital cameras allow them to see their pictures instantly, store thousands of images without clutter, and erase mistakes with a button. The days of carefully rationing film on vacation or waiting hours—sometimes days—for the final product were gone.

Tushman and O'Reilly's Ambidextrous Organization theory (1996) emphasizes the need to balance the "exploration" of emerging technologies, such as digital imaging, with the "exploitation" of their current strengths, including film technology. Kodak's downfall stemmed from its failure to maintain this balance, as it became excessively fixated on leveraging its successful film technology rather than pursuing the industry-shattering opportunities offered by digital innovation.

The psychological shift is equally profound; photographs are no longer treasured keepsakes but disposable commodities that can be endlessly retaken and altered. The thrill of capturing the "perfect shot" in a single attempt has given way to an era of experimentation and instant feedback. This transition reflects the Exploration vs. Exploitation theory (March 1991), similar to Tushman and O'Reilly's Ambidextrous Organization theory, which suggests that companies must balance their current strengths with the pursuit of new opportunities. Kodak's reluctance to adopt digital innovation, despite making early advancements in digital imaging, illustrates the risks of concentrating too heavily on exploitation while failing to pursue new market avenues.

The decline of film was swift and unforgiving. In 2000, film photography was still a multibillion-dollar industry, with Kodak leading the way. By 2010, it had diminished significantly, crushed under the weight of a market fully embracing digital technology. In the early 2000s, digital camera sales surpassed those of film cameras. Within a few short years, smartphones with built-in cameras would have a significant impact on even the digital camera market. Photography shifted from meticulously composing and printing the perfect shot to capturing, sharing, and moving on. The change in consumer behavior was unstoppable, fueled by the rapid rise of social media, where sharing images became just as important as taking them. This transition reflects a

textbook example of disruptive innovation, where new technologies transform consumer expectations and profoundly alter business models.

Digital disruption was existential for Kodak, a company whose entire business model was centered on selling film, paper, and processing chemicals. Each digital camera sold represented one fewer roll of film purchased, one less trip to the photo lab, and one more nail in the coffin of Kodak's golden age. Yet, despite Kodak's pioneering efforts in digital imaging within their labs, the company hesitated. In Christensen's (1997) *The Innovator's Dilemma*, it is suggested that industry-leading companies, such as Kodak, encounter failure when they concentrate on sustaining innovations—refinements to their current products—instead of seeking disruptive innovations aimed at emerging or neglected markets. Kodak's reluctance to fully embrace digital innovation illustrates this dilemma.

The organization that had once defined the photography industry was now paralyzed by its success, unwilling to let go of the past, even as the future rushed toward them rapidly. This resistance to change was not merely a business decision but also an emotional one. Kodak had developed an identity so deeply intertwined with film that digital technology was seen not as a new frontier but as a threat. The Path Dependence theory (David, 1985) suggests Kodak's heavy dependence on its past achievements in film photography created a psychological and strategic trap. This led to a rigid mindset within the company, making it resistant to change.

Could this inability to change signify a crisis in brand identity? Much like their rebranding from the Eastman Dry Plate Company to the Eastman Kodak Company in 1892, their brand ultimately evolved as photography progressed. As Kodak failed to adapt to the disruptive forces of digital technology, its brand, once synonymous with film photography and innovation, became increasingly irrelevant in the new digital landscape.

The photography industry was disrupted not by a slow evolution but by a seismic shift. The question was no longer whether digital would replace film but how companies would navigate this new reality. Kodak possessed the tools, research, and brand power to lead this transformation, but was unwilling to let go of the past. The psychological unwillingness within Kodak's leadership, the reluctance to acknowledge the pace of change, and the deep-seated belief in film's dominance contributed to a series of mistakes that sealed Kodak's fate.

As Kodak marked its transition to digital, the company struggled between innovation and nostalgia—a battle it would soon realize it was losing. What followed was a series of critical decisions that would shape its fate in a world that had already moved on (Vinokurova & Kapoor, 2023). The story of Kodak is not merely a cautionary tale about the dangers of technological disruption; it is a testament to the power of adaptation and the consequences of failing to embrace change when the future arrives faster than anticipated.

Kodak's Initial Response to Digital Photography

Early Investments in Digital Technology

In 1975, Steven Sasson, an engineer at Kodak, developed the world's first digital camera, an innovation that utilized electronics to capture images rather than relying on film. The prototype was as large as a toaster, weighing approximately 8 pounds, and took a picture on a cassette tape that required 23 seconds to capture, marking a significant development toward a realized digital camera. Despite this groundbreaking work, Kodak's management decided not to commercialize the digital camera, primarily because they feared cannibalizing their profitable film business.

This decision embodies what Clayton Christensen (1997) described in *The Innovator's Dilemma* – an incumbent firm too invested in sustaining innovations to embrace disruptive ones. Kodak was selling a billion rolls of film annually, booking enormous revenues not only from the sale of film but also from photographic paper and chemicals used to develop photos. "We weren't just selling film; we were selling a whole ecosystem- film, processing, and printing. Every photo taken was money in Kodak's pocket," (Participant 2, personal communication) said another former employee at Kodak. That lucrative model made it difficult to find a reason to move toward digital technology. Christensen's framework suggests that established companies, such as Kodak, frequently face challenges in embracing disruptive technologies. This is mainly because these innovations tend to underperform in mainstream markets initially and are less profitable than existing products.

Digital photography offered none of the follow-up revenue streams that film did. Once a digital camera was sold, there were no consumables to generate further sales. "Digital cameras didn't need film or processing—once people bought the camera, they were done. That was a scary thought for Kodak," (Participant 3, personal communication) says an industry insider. This is a key reason why Kodak hesitated to embrace the digital landscape fully. The company found itself trapped in what March (1991) characterizes as an "exploitation" strategy, focusing on enhancing existing skills rather than exploring new opportunities.

Inner Conflicts and Strategic Hesitations

Internal conflicts and strategic hesitation marked Kodak's transition to the digital era. The company faced a significant dilemma: how to embrace digital technology without jeopardizing its profitable film sector. This situation exemplifies Path Dependence Theory (David, 1985), which highlights how firms become entangled in outdated technological commitments, thereby complicating their ability to shift toward emerging innovations. One interviewee noted, "There were two factions within Kodak—the believers in digital and those who thought film would never die. The problem was that leadership sided too often with the film loyalists" (Participant 7, personal communication). Organizational inertia (Tushman & O'Reilly, 1996) significantly contributed to this internal conflict, as leadership consistently preferred the safer path of supporting film loyalists over venturing into new digital technologies, resulting in indecisiveness and strategic vagueness.

Although Kodak invested in digital imaging, it never fully committed to it. This fragmented approach prevented the company from establishing a strong foothold in the emerging digital market. As one former Kodak insider recalled, "We had the technology. We had the patents. But we didn't have the willingness to let go of film. That hesitation cost us" (Participant 3, personal communication). Even though Kodak had patents in digital imaging, its reluctance to fully embrace the change exemplifies Chesbrough's (2003) Open Innovation concept, which argues that firms must leverage internal and external knowledge to sustain innovation. Kodak, in contrast, relied heavily on internal research and development, failing to gain the external collaborations that would have accelerated its digital efforts.

Moving from film-based photography to digital represented a significant shift in how images were captured and shared, leading to considerable consequences for revenue models in many industries. "Unlike film photography, digital photography doesn't have the recurring revenue streams," (Participant 1, personal communication) said a former employee. "With film, consumers needed to buy rolls and pay to develop and print them repeatedly. Digital photography has the advantages of instant review and storage, but it does not have these ongoing revenue streams" (Participant 3, personal communication).

Traditional film companies, such as Kodak, faced significant challenges during the digital revolution. Digital photography presented considerable advantages over conventional film photography but disrupted the revenue streams that had sustained the industry for decades. This posed a monumental challenge for companies such as Kodak, which had thrived on selling film and related services; finding ways to replace those revenue streams in the digital age would not be easy. As one interviewee bluntly noted: "Kodak was looking for a high-margin consumable to replace its diminishing film revenue, but the only product with a profit margin comparable to film was cocaine" (Participant 3, personal communication). The difficulty of adapting their business model and the initial hesitation left Kodak without a clear direction. Teece's (2010) Dynamic Capabilities framework suggests that businesses that fail to sense, seize, and adapt to technological changes face the threat of obsolescence. Despite its technological foresight, Kodak lacked the necessary agility to transform its business model effectively.

Competitor Response to the Shift Toward Digital

While Kodak was reluctant to embrace digital photography fully, its competitors welcomed the change, recognizing that it would offer opportunities rather than threats (Gavetti & Rivkin, 2007). Companies such as Fujifilm, Sony, and Canon quickly adapted to the market by making significant investments in digital imaging technologies and diversifying their business models ("Innovating for Survival," n.d.).

Fujifilm's Adaptation Strategy

Fujifilm, Kodak's biggest rival in the film market, was more cognizant that digital photography would change everything. As Kodak wavered, Fujifilm took concrete steps to future-proof its

business. "Fujifilm saw the writing on the wall and didn't waste time," (Participant 2, personal communication), a former Kodak employee said. "They doubled down on digital R&D and diversified into other sectors like healthcare and cosmetics, ensuring they wouldn't be dependent on film" (Participant 2, personal communication).

Rather than clinging desperately to film, Fuji developed its digital cameras and software, and invested in medical imaging, pharmaceutical products, and cosmetics—all areas where the company could leverage its expertise in chemistry. The result: Fujifilm continued to thrive despite film sales plummeting (Sekar, 2024). This strategic diversification exemplifies an ambidextrous organization (Tushman & O'Reilly, 1996), one that is proficient in leveraging its current strengths while venturing into new markets. Fujifilm's adaptability has secured its survival and prosperity despite declining film sales.

The Rise of Electronic Companies in Digital Imaging

While Kodak and Fujifilm dominated traditional photography, the digital revolution helped electronic companies such as Sony and Panasonic. Sony was already an established player in consumer electronics, so cameras would naturally fit within the range of their products. "Sony didn't have a film business to protect, so they went all-in on digital. They built sensors, improved storage, and made cameras that fit seamlessly into the growing digital ecosystem," (Participant 2, personal communication) said one expert. As Christensen (1997) predicted, disruption often favors new entrants over incumbents, as they lack ingrained interests in outdated technologies.

By that time, Canon and Nikon were well-established camera manufacturers that had also quickly adopted the digital wave. They invested in high-quality digital SLR cameras so that by the time professionals and enthusiasts switched to digital, the image quality would not deteriorate. "Canon and Nikon realized digital photography wasn't a fad but the future. They kept innovating, and that's why they're still leaders today," (Participant 3, personal communication) says an industry insider.

Kodak's Missed Opportunity

Meanwhile, Kodak's inability to shed its film business left it struggling to compete. Although Kodak was a pioneer in early digital imaging, it was slow to commercialize the technology, allowing competitors to step in and capture the market. "Kodak had digital cameras before almost anyone else, but they didn't believe in them like their competitors did. That hesitation gave others the chance to take over" (Participant 6, personal communication), said one former Kodak employee. Kodak's downfall underscores the importance of dynamic capabilities (Teece, 2010) and the ability to adapt business models in response to technical changes.

When Kodak tried to pivot, it was too little, too late (Sekar, 2024). Fujifilm diversified, Sony revolutionized consumer digital imaging, and Canon and Nikon secured their place in professional photography (Tripsas & Gavetti, 2000). As a result, Kodak fell out of the industry's leading position and was unable to regain its position in the new digital era.

Decision Making: Strategies and Failures

Delay in Commercialization of Digital Photography

Kodak's decision-making regarding digital cameras demonstrates strategic caution and a failure to adapt to the industry's shift. Although the company invented the first digital camera in 1975, it chose to protect the highly lucrative film business rather than aggressively pursue digital technology. This trepidation allowed other competitors, such as Sony and Canon, to establish a foothold in the market before Kodak made significant investments.

The primary reason for Kodak's delay was the cannibalization of its film sales. This aligns with Christensen's (1997) Innovator's Dilemma, which theorizes that established industry players frequently resist disruptive innovation out of concern for jeopardizing their lucrative existing business. One interviewee stated, "Kodak's leadership was aware of digital's potential but prioritized short-term profitability over long-term innovation" (Participant 2, personal communication). This short-sighted approach hindered Kodak from capitalizing on its invention, allowing competitors to fill the void.

In the late 1990s and early 2000s, Kodak began investing heavily in digital cameras; however, by that time, the market leaders had already established themselves. Teece's (2010) Dynamic Capabilities framework suggests that companies must "sense, seize, and transform" in response to technological changes to remain competitive. Unfortunately, Kodak did not adjust promptly. "Kodak's digital strategy was reactive rather than proactive, forcing the company to play catchup in a fast-moving industry" (Participant 6, personal communication), an employee noted. The late entry meant that Kodak struggled to differentiate its digital solutions from those of established players in the ever-competitive field. Once a dominant leader in the industry, Kodak was now merely a follower.

Furthermore, internal resistance to change aligns with the Path Dependence Theory (David, 1985), suggesting that companies with a historical connection to technologies encounter challenges when adapting to new ones. "Many within Kodak viewed digital technology as a threat rather than an opportunity, which resulted in internal conflicts and slow decision-making" (Participant 7, personal communication). This reluctance to embrace innovation and adaptability was pivotal in Kodak's decline.

Ultimately, Kodak failed to commercialize digital cameras promptly due to strategic conservatism, market miscalculations, and internal resistance to change. As the industry progressed, Kodak's late response struggled to keep pace, illustrating the consequences of failing to balance the leveraging of innovation with existing business models.

Diversification into Pharmaceuticals

Kodak's pharmaceutical foray has all the hallmarks of a disastrous diversification into a highmargin industry. Hypnotized by pharmaceutical profitability, management fundamentally misjudged the transferability of the company's expertise. This illustrates the concept Penrose (1959) discusses in The Theory of the Growth of the Firm, where businesses strive to grow by utilizing their existing capabilities to enter new markets, frequently with mixed success. As one former Kodak executive later conceded, "There was this belief that because we had mastered chemical engineering for film, we could easily pivot to pharmaceuticals. That assumption turned out to be deeply flawed" (Participant 3, personal communication).

Kodak labored under the delusion that its vast knowledge of chemicals, a key raw material for film manufacture, would translate well into the production of drugs. Unfortunately, this assumption ignored the immense differences between the two businesses. According to Henderson and Clark's (1990) Architectural Innovation Theory, companies attempting to reallocate their current skills often overlook crucial distinctions between different industries. While both products involved chemical processes, drug development requires a deep understanding of biology, medicine, regulatory affairs, and clinical trials—all areas where Kodak had no core competency. One former employee said, reflecting on that miscalculation, "We underestimated how different the pharmaceutical world was. It wasn't just chemicals but about navigating regulations, clinical testing, and entirely different supply chains" (Participant 2, personal communication).

Driven by this fallacy, Kodak acquired Sterling Drug, which was not even an industry leader, at a premium price, further compounding its mistake. This aligns with Rumelt's (1991) diversification framework, which asserts that unrelated diversification frequently fails due to a lack of synergies. The heavily debt-financed acquisition burdened the company with financial liabilities and ultimately proved to be a strategic failure. A company insider later acknowledged the error of buying Sterling Drug: "Sterling Drug was supposed to be our way in, but it was never a top-tier player. We overpaid and ended up with something we didn't fully understand how to manage" (Participant 2, personal communication). Kodak purchased Sterling-Winthrop Pharmaceuticals for \$5.1 billion in 1988. Six years later, it sold the prescription drug business to Sanofi for \$1.675 billion and the over-the-counter (OTC) business to SmithKline Beecham for \$2.925 billion.

Ultimately, Kodak's pharmaceutical venture exemplified core rigidity (Leonard-Barton, 1992)—where a firm's strengths in one area become obstacles when trying to pivot into another. A dissatisfied employee later lamented, "We thought we were diversifying, but really, we were throwing money at an industry we didn't belong in" (Participant 2, personal communication), demonstrating Kodak's flawed understanding of the industry's complexity.

Diversification into Ink-Jet printing

The diversification of Kodak into inkjet printing was marked by strategic missteps, misaligned motivations, and an inability to navigate the industry's challenges effectively. According to March's (1991) Exploration-Exploitation framework, businesses need to balance investment in innovations with optimizing current capabilities. Kodak, however, struggled to achieve this

balance. The venture led by CEO Antonio Perez was driven by personal ambition rather than sound market analysis. One former Kodak executive reported, "Perez was obsessed with competing with HP—it was more personal than strategic" (Participant 6, personal communication). His anger at the company that had passed him over for the chief executive position led Kodak to compete head-on with an industry powerhouse rather than to differentiate itself.

HP and Epson had already established themselves in this area with brand equity, strong distribution, and significant R&D. "We were late to the game and, without an overwhelming advantage, were just another printer company" (Participant 2, personal communication). Besides these challenges, the home printer market was shrinking as increasing digital document sharing and cloud storage decreased consumer demand for printers.

Subsequently, Adner and Kapoor's (2010) Ecosystem Innovation Framework emphasizes that technological success depends on the product and the supporting ecosystem. There were substantial quality issues: consumers felt the hardware was unreliable, and the inks were costly, which further damaged the company's brand reputation. One staff member later confessed, "The printers just weren't up to par—too many complaints, too many returns" (Participant 2, personal communication). Without a better product, the chances of it ever outperforming were minimal.

Ultimately, Kodak's foray into inkjet printing proved to be an expensive misstep. Driven by a personal vendetta rather than market opportunity, the company entered a shrinking industry characterized by brutal competition, a lack of real differentiation, and product quality issues. As one former insider said, "We bet big on the wrong fight and lost" (Participant 2, personal communication).

Kodak's Lacked Vision in Xerography

Xerox exemplifies Kodak management's inability to perceive the value and potential of emerging technologies (Vinokurova & Kapoor, 2023). In the late 1930s and early 1940s, before the primary focus of this case study, Kodak management rejected Chester Carlson's invention, thereby failing to take a pioneering role in the development of photocopying. One former Kodak employee states, "There was another individual, and I think his name was Chester Carlson, but he invented the copier, and Kodak thought, that's a dumb idea" (Participant 7, personal communication). Rather than investing in what would become a revolutionary technology, Kodak allowed Carlson to walk away, leading him to establish what would become Xerox, a company synonymous with photocopying.

This strategic decision highlights Kodak's failure to recognize disruptive innovation, a concept popularized by Clayton Christensen in 1997, where xerography, a disruptive innovation, seemed inferior to traditional methods but improved over time, displacing well-established market leaders. Kodak, deeply rooted in its film-reliant revenue model, overlooked the potential of xerography, much like its later misjudgment of digital photography. Had Kodak embraced an

"ambidextrous organization" strategy (Tushman & O'Reilly, 1996), balancing its core operations with innovations, it might have successfully integrated xerography into its existing framework of expertise.

This was not isolated but part of a broader pattern of disregard for internal innovation. "It wasn't just because Kodak ignored the digital imaging sensor; it is because they ignored all these ideas developed by really talented people who worked for them, and they pushed them aside" (Participant 7, personal communication), said one hardened employee. Kodak's inflexibility regarding its business model, much like digital imaging many years later, blinded it to the potential of rising technologies.

After major companies, including IBM and General Electric, rejected Carlson's idea multiple times, the Haloid Company recognized its potential and turned it into Xerox. If Kodak had possessed the foresight, it could have entered a profitable new industry beyond film and photography (TIME, 1971). Instead, it squandered yet another billion-dollar opportunity, again positioning the brand as a leader in innovation without a clear vision for the future.

Corporate Arrogance and the Cost of Inflexibility

Kodak had a firm stance on change. Even regarding product specifications, when customers directly asked for minor adjustments to facilitate simple measurement conversions. This inflexibility underscores the company's arrogance and unwillingness to adapt, dividing potential business partners and impairing Kodak's ability to respond to market demands. As one former employee recounted in an interview, Kodak sold light management film to Asian electronics giants LG and Samsung for use in their TVs and computer monitors. A team from one of these companies visited Kodak's facilities, impressed by the product's quality and eager to incorporate it into their manufacturing process. However, the team had a straightforward request: instead of receiving the film in Kodak's standard 26-inch-wide, 1,000-foot rolls, they needed it in 600-millimeter-wide, 300-meter rolls to fit their production lines better. When this request was communicated to Kodak's management, their response was dismissive— "We're Eastman Kodak. You get what we send you" (Participant 7, personal communication).

Kodak's refusal to accommodate a negligible conversion that required no changes to the product itself, only its measurements, demonstrates Kodak's corporate arrogance and deep-rooted resistance to change. Instead of recognizing an opportunity to build stronger relationships with major global clients, Kodak insisted on dictating the terms, believing its market dominance provided the leverage to do so. This rigidity aligns with the concept of "structural inertia" (Hannan & Freeman, 1984), where organizations become so firmly structured around existing processes that they resist even minor changes. In an era of increasing competition and shifting industry dynamics, this rigid mindset cost Kodak valuable business and credibility in emerging markets. As competitors adapted to global demand and tailored their products accordingly, Kodak's unwillingness to accommodate the most straightforward request reinforced its

reputation as a company stuck in its ways, more focused on maintaining internal standards than evolving to meet external needs.

Ironically, as my interviewee noted, Kodak's production line workers secretly made the measurement conversions behind the scenes, aware that management's stubbornness was the real obstacle. Instead of leveraging dynamic capabilities (Teece, Pisano, & Shuen, 1997) to adjust its strategies in response to changing market conditions, Kodak maintained its focus on upholding internal standards, which eroded its competitive position.

Kodak's Missed Opportunity: Ektachem

The Ektachem process is yet another example of Kodak failing to recognize a billion-dollar opportunity. Developed to diversify Kodak's product line and enter the expanding clinical diagnostics market, the Ektachem process eliminated the manual mixing of chemicals and complex lab procedures that were previously required. It revolutionized blood testing by utilizing small slides coated with chemicals. A drop of blood (or another fluid) was placed on the slide, and a machine quickly and efficiently provided the results, testing for glucose or cholesterol. This method was designed to be faster and simpler, employing "dry slide" technology. The Ektachem process was truly revolutionary; it can be thought of as a miniature chemistry lab on a small, coated slide. While the Ektachem process represented a groundbreaking innovation for Kodak, commercializing this innovation proved to be more challenging than its development had been.

In the mid-1990s, Kodak faced increasing challenges in its core photography business, resulting in the sale of several non-core business units, including its clinical diagnostics division. Kodak's inability to capitalize on Ektachem highlights the "valley of death" in innovation management, where companies struggle to bridge the gap between technological development and commercialization (Markham, 2002). This failure corresponds with the "resource allocation problem" (Christensen & Bower, 1996), in which leading firms favor sustaining innovations that benefit their existing customers over disruptive technologies that could transform their industry. Kodak, used to the high-margin film business, lacked the organizational willingness to establish a new business model around Ektachem.

Johnson & Johnson recognized the potential of the Kodak Ektachem process and acquired this innovation from Kodak for \$1 billion (Noonan, 2014). At the time, this sale was viewed as a significant influx of cash for Kodak and a fair value. However, it soon became clear how considerable an oversight this was. As one former employee remarked about the development and eventual sale of the Ektachem process, "It wasn't that Kodak didn't want to pursue it. It was that they didn't know how to manage it, so we never profited from the Ektachem process. But then they sold it to Johnson & Johnson, and in their first year, they made \$6 billion from that process" (Participant 7, personal communication). Kodak was an exceptional inventor; this example showcases their ability to develop new processes and systems, yet it also highlights Kodak's greatest weakness: transforming inventions into marketable products. Kodak had the

potential for a lucrative business in clinical diagnostics. Still, it was blinded by the need for immediate cash and failed to recognize the long-term potential of Ektachem processing.

Dismissal of Competition: Kodak's Failure to Acknowledge Fujifilm as a Credible Threat

Kodak's long-standing dominance in the photographic film industry fostered a complacency that blinded the company to emerging competitors, particularly Fujifilm. This oversight was dramatically highlighted during the 1984 Los Angeles Olympics. Peter Ueberroth, chairman of the USA Olympic Committee, personally approached Kodak with the opportunity to be the primary sponsor of the Games, stressing that while Fujifilm had shown interest, the committee favored an American company. Kodak dismissed the offer, claiming they faced no credible competition. An interviewee recalled, "Kodak told the Olympic Committee they didn't feel they had any competition" (Participant 5, personal communication). So Fujifilm took the deal instead, and within three years, by 1987, a large green Fujifilm blimp was flying over Rochester, right in Kodak's backyard.

This strategic error illustrates "institutional myopia" (Tripsas & Gavetti, 2000), where Kodak's longstanding identity as the leading film company hindered its ability to recognize rising threats. In contrast, Fujifilm adopted a strategy of "strategic ambidexterity," maintaining its core film business while expanding into healthcare and electronics (O'Reilly & Tushman, 2013).

The Olympics served as a significant platform for Kodak, not only to enhance brand visibility but also to showcase its technological capabilities. A former employee recalled, "I remember when we had the Olympics. We would set up a media center on the grounds where the Olympics were, and they would develop pictures for photographers. They even had a scanning digital center to send pictures back to their newspapers" (Participant 1, personal communication). This involvement highlights the significance of the Olympics to Kodak's operations and brand visibility.

Sponsorship of the 1984 Olympics provided Fujifilm with unparalleled exposure in the U.S. market, enabling its expansion and solidifying its reputation as a legitimate rival (Tsurumi & Tsurumi, 1999). Kodak's failure to recognize Fujifilm's growing threat extended beyond sponsorships; Fujifilm also outmaneuvered Kodak in pricing and innovation. By the time Kodak took Fuji seriously, it was too late. Fuji had already captured a significant market share, proving that Kodak's refusal to acknowledge competition was costly.

Organizational Culture and Internal Dynamics

Kodak's Post-1980 Leadership

Kodak's leadership, or lack thereof, significantly contributed to its demise. After 1980, successive CEOs managed Kodak, each with a distinct vision for the future, and all faced with the challenge of transitioning Kodak's film business to digital.

Colby H. Chandler managed the company between 1983 and 1993. As expected, this leader sought to maintain a powerful leading position in film. He worked to capitalize on the opportunities provided by new technologies, yet he failed to deliver innovations while retaining the profitable and well-established film business. It was, unfortunately, a significant oversight in the decision-making process.

In 1993, George M. Fisher became the first outsider to be selected as CEO, and with his selection came a new direction. Before joining Kodak, he was the CEO of Motorola, where he had a strong reputation for leadership in the technology sector. Thus, Kodak was likely to change its direction toward broader horizons. During his tenure, Fisher emphasized diversification and global expansion, recognizing the increasing need for Kodak to diversify. However, Fisher struggled to push the company to accept the impending digital revolution that ultimately consumed his presidency. Fishers' leadership requires closer scrutiny as his tenure began with great optimism and ended with a battered reputation.

Daniel A. Carp, who became chief executive in 2000, bet big on digital photography and online services. Although the company recognized the rapid growth of digital, Kodak and Carp missed the crucial transition to consumer cameras. Failing to capture this mass market sealed the company's fate in its decline.

Antonio M. Perez led Kodak from 2005 to 2013, aggressively entering the digital imaging and printing businesses. While Perez recognized the need to embrace the digital era, his tenure was marked by financial challenges, ultimately leading to Kodak's bankruptcy in 2012. This period is particularly significant for understanding Kodak's decline, as Perez's decisions during this critical time are speculated to have been motivated by personal ambition and to have culminated in personal gain and therefore deserve closer scrutiny.

After declaring bankruptcy in 2013, Jeffrey J. Clarke took charge and guided the company toward commercial printing and technology licensing. Under Clarke's leadership, Kodak emerged from bankruptcy as a much smaller and more focused entity. Since 2019, Jim Continenza has served as Executive Chairman and CEO, with a focus on commercial printing and brand licensing. These recent leadership changes demonstrate Kodak's commitment to rebuilding and establishing a sustainable path following its substantial downturn.

The Impact of George M. Fisher's Leadership on Kodak's Decline

The period from 1993 to 2000, under George Fisher, is often regarded as the most significant phase when critical opportunities were missed during the digital revolution. Despite his extensive experience from outside, he was yet another leader who contributed to Kodak's decline.

At first, Fisher's arrival was viewed as a cause for optimism. He became the first CEO recruited from outside Kodak. He was expected to introduce fresh ideas and challenge traditional practices, aiming to break the "organizational inertia" (Hannan & Freeman, 1984) that was consuming the company. He sought diversification and global expansion, recognizing that Kodak

needed to move beyond its previous strategies. This might have fostered optimism, but it diverted attention from the urgent need to address the growing dominance of digital photography.

The most significant shortcoming of Fisher's tenure was his failure to embrace the digital revolution and fully recognize its true potential. Kodak's invention of the digital camera led the company to overlook its disruptive capabilities under Fisher's leadership. Instead of viewing digital photography as an opportunity, the company focused on profiting from its lucrative film business, underscoring a trend that persisted throughout Kodak's decline. This aligns with Christensen's (1997) *The Innovator's Dilemma*, where Kodak failed to disrupt itself by valuing sustaining innovations over disruptive ones. Fisher's focus on maintaining the film business, a sustaining innovation, while ignoring the potential of digital, a disruptive innovation, serves as a textbook example of this theory. This ultimately proved to be a critical mistake.

Some argue that while likely well-intentioned, Fisher's focus on cost-cutting and restructuring unintentionally stifled innovation and long-term strategic thinking. By prioritizing short-term financial returns over investments in emerging technologies, Kodak missed the chance to lead in digital photography.

Struggles under his leadership did not go unnoticed. As one former Kodak employee stated, "You'd think Kodak would've woken up and made a change, but they just kept going in the wrong direction. George Fisher was still CEO while being named the worst of all time twice. That should have been a huge red flag, but instead, they stuck with him, and the company kept sinking" (Participant 3, personal communication). Despite rising red flags, Kodak did not deviate from its course as the photography industry underwent significant changes around it.

The leap from film to digital was monumental, and there was no easy solution. However, the company's failure to fully embrace digital technology during Fisher's tenure is one of the key factors defining Kodak's decline ("Kodak's Failed Turnaround," n.d.). This also underscores the 'organizational culture' and 'internal dynamics,' where Kodak's deeply embedded cultural resistance to digital technology—the 'Film Mafia'—paralyzed strategic decision-making (Tushman & O'Reilly, 1996). In retrospect, the Fisher era was a time of missed opportunities. Kodak could have secured a place in the digital age, but instead held onto its past, paving the way for its eventual downfall.

The Impact of Antonio Pérez's Leadership on Kodak's Decline

Antonio Peréz's strategic errors at Kodak from 2005 to 2012 doomed the company. While George Fisher led a failed effort to transform Kodak into a digital business, Pérez aggressively refashioned the company's business model. However, his decisions did not stimulate the company; instead, they laid the groundwork for a series of costly missteps that accelerated Kodak's decline.

One defining decision made by Pérez was to push Kodak into the consumer inkjet printer market. A former Kodak employee said, "Antonio Pérez wanted to be CEO of HP but didn't get the

position, so he came to Kodak determined that they should produce consumer inkjet printers" (Participant 2, personal communication). This decision stemmed from Kodak's long-standing reliance on high-margin consumables, such as film, and Pérez viewed ink cartridges as a similar source of revenue. However, it came at a significant cost, involving the sale of its profitable medical imaging business and the exit from the highly lucrative satellite imaging sector. Both businesses are thriving today, highlighting the scale of opportunity that Kodak missed in its desperate quest to find a new high-margin consumable product.

Pérez's inkjet venture was doomed from the very start. One former employee said, "HP and, to a lesser extent, Canon and Epson, had the printer market so locked up that there was no way for Kodak to compete" (Participant 2, personal communication). When the company finally introduced inkjet printers, the market was already fully stocked with other brands that people had grown accustomed to and were familiar with. Kodak responded by selling less expensive ink cartridges than its rivals, but this tactic boomeranged. The printers were of poor quality, and by the mid-2000s, consumer printing was already in decline due to the increased sharing of digital documents. This left Kodak with a line of failing products and no means to regain its extraordinary investment, let alone market share.

Pérez's leadership arguably played the most detrimental role in Kodak's decline, promoting an expansion into new markets rather than reinforcing its existing foundation. A former employee remarked, "What led to Kodak's fall was its transition from film to digital photography. Their constant need for growth drove them to explore new areas, ultimately resulting in bankruptcy. They would likely remain a strong company today if they had focused on their established businesses." This perspective resonates with the concept of 'ambidextrous organizations' (Tushman & O'Reilly, 1996), which emphasizes the importance of balancing the exploitation of existing capabilities with the exploration of new opportunities. Unfortunately, Kodak failed to achieve this balance, neglecting its core competencies in favor of digital innovation. This misstep highlights one of Kodak's most significant failures: the company overlooked the digital photography revolution and failed to capitalize on the booming industries it had already entered.

Under Pérez, Kodak continued to pursue unsustainable growth rather than leveraging its strengths. When the company recognized that the inkjet business was a failure, it had already lost critical assets and exhausted its options. In 2012, Kodak filed for bankruptcy, marking the end of an era for the once-industry giant.

Antonio Pérez's leadership serves as a cautionary tale of corporate mismanagement. His attempt to emulate HP, rather than building on Kodak's existing strengths, led to disastrous decisions that drained the company of its most valuable assets. Although Kodak's decline began long before his tenure, it was his choices that ultimately sealed its fate. These leadership decisions highlight the importance of 'dynamic capabilities' (Teece, 2007) for companies facing rapid technological changes to maintain a competitive advantage. Kodak's failure to adapt to the digital transition highlights the risks of relying on outdated strategies while overlooking emerging technological

trends. The company could have maintained a solid, albeit smaller, presence in fields like medical imaging or satellite technology (Thaliva, n.d.). Instead, it placed a bet on an unwinnable gamble in the printer market and lost.

Throughout the poor decisions and failed ventures, Antonio Pérez profited from Kodak's failure through high executive compensation, stock incentives, and asset sales. Despite the company's struggles, he amassed millions in salary and bonuses, including \$15 million in 2011, before Kodak filed for bankruptcy. He also negotiated retention bonuses during restructuring and benefited from selling off valuable divisions, such as medical and satellite imaging. This provided Kodak with some short-term cash flow but left it even more diminished in its long-term prospects. He stepped down and continued to receive substantial payments as a consultant, while employees faced layoffs and reduced pension benefits. According to a former employee at Kodak: "Antonio Pérez was brought in to bankrupt the company... and he did an outstanding job of that" (Participant 7, personal communication).

Leadership Impacts on Organizational Culture

The continuous shifts in leadership and varying strategic visions at Kodak have led to a deeply fractured corporate culture, significantly undermining employee morale and organizational efficiency. Each incoming CEO introduced a new vision, often reversing the strategies of their predecessors, which left employees feeling uncertain about the future. Instead of enjoying a cohesive direction, Kodak found itself stuck in internal power struggles that hindered progress.

Cultural divisions were also significant: those eager to advance into digital technology and those fiercely loyal to the film industry, often referred to as the "Film Mafia" (Participant 7, personal communication). This influential internal group resisted any shift away from Kodak's traditional film business, viewing digital as more of a threat than an opportunity. Employees who supported change were often overshadowed or dismissed by those capitalizing on the company's historical successes. This cultural conflict can be understood through 'organizational culture theory' (Schein, 2010), where a deeply entrenched culture of film loyalty hindered Kodak's ability to transition to digital technologies, further worsening Kodak's decline. As Shein's framework suggests, cultural change is a process, and behavior should be unlearned before new behavior can replace the old. As one former Kodak employee remarked, "If you tried to challenge the status quo, you'd hit a wall—there were people who would rather sink with film than adapt to the future" (Participant 7, personal communication).

This created an internal clash between the followers of digital photography and the 'film' lovers, perpetuating late decisions, wasted effort, and unexploited possibilities. While competitors dove headfirst into digital imaging, Kodak remained stuck in corporate infighting, unable—or unwilling—to commit to one long-term course of action. When CEO George Fisher joined in 1993, a film-first mentality fostered a rigidity that hindered significant change. As one former Kodak employee described it, "When George Fisher came in, there was still a pretty strong Film Mafia that wanted anything to do with film to go on, and anything that wasn't film, do not do it.

He could never change direction or intervene from what the Film Mafia wanted to do" (Participant 7, personal communication).

However, this internal divide did not end with the fall of film. When Antonio Pérez became CEO in 2005, Kodak missed its next opportunity for alignment around one clear vision. Rather than focus on digital photography, which had brand equity, Pérez decided to reorient the company around consumer inkjet printing to develop a new revenue source. This move created a new cultural divide within the company: one faction was determined to remain in the photography business, while the other advocated for the inkjet venture. This cultural conflict illustrates Kodak's failure to develop 'dynamic capabilities' (Teece, 2007). Rather than adapting to disruptive changes, the organization became fragmented and unable to adjust. Just as the film business had overshadowed digital in years past, Pérez's printer obsession siphoned resources, attention, and talent from Kodak, further dividing the company from its core competencies. Or, as one employee later framed it, "Instead of fixing past mistakes, we just made new ones first; it was film vs. digital, then it became photography vs. printers. We were always at war with ourselves" (Participant 6, personal communication).

With every leadership change, that divide grew more profound. Each new CEO, Fisher, then Antonio Pérez, would attempt to steer the company in a new direction, but, with no single unifying internal culture, their efforts were often met with resistance. This lack of alignment hindered innovation and created uncertainty among employees, who were constantly required to adjust to new priorities that usually changed frequently. Instead, the company became a culture of instability and non-innovation. Kodak was stuck in an internal battle, unable to commit fully to its past or future— a fatal flaw in its decline (Hess, n.d.). This highlights the importance of organizational ambidexterity and alignment (Tushman & O'Reilly, 1996), where firms must strike a balance between the competing demands of continuity and change within their culture.

Analysis of Kodak's Marketing Efforts to Maintain Its Brand Presence in the Wake of The Digital Revolution

Kodak's Fatal Fixation: How Clinging to Film Through Marketing Influenced Its Decline

Kodak's commitment to film photography significantly contributed to its downfall, and its marketing efforts only exacerbated that critical mistake. The company's legacy was built on film, yet its failure to adjust its messaging to the digital revolution left it increasingly disconnected from evolving consumer preferences.

For decades, Kodak promoted the concept of the "Kodak moment," an emotional, nostalgia-filled connection to capturing memories on film. This strong branding solidified its position in photography but ultimately became a trap that kept the company from adapting to the rapid growth of digital technologies. Rather than positioning itself as a leader in digital photography, Kodak's marketing doubled down on film, portraying digital as a niche or temporary trend. Rather than educating consumers on the advantages of digital photography, such as instant

review, cost efficiency, and easy sharing, Kodak continued to emphasize the sentimental value of printed photos, reinforcing its resistance to change.

This inability to embrace digital transformation again reflects the "Innovator's Dilemma" (Christensen, 1997), which overlooks disruptive innovations and instead sustains technologies with short-term profits. Despite inventing the digital camera, Kodak's reluctance to adopt digital imaging mirrors the firm's struggles in this dilemma. Instead of innovating in digital photography, Kodak continued to focus on its traditional film business, which undermined its market position and accelerated its decline.

This is further reflected in its marketing investments. Even as digital cameras' popularity grew, Kodak invested heavily in promoting film products and sponsorships, knocking its digital offerings into the shadows. Instead, marketing that could have been used to build excitement for its digital offerings continued the illusion of keeping the company tied to a fading film model even longer. This divided a new generation of photographers, making Kodak appear out of touch and unwilling to innovate.

The company's marketing approach also reflects the idea that if a product isn't marketable, it won't succeed. The reverse is equally true. One interviewee said, "Technology develops because it gives people convenience and is marketable; if it weren't marketable, it wouldn't make any money" (Participant 1, personal communication). In the case of Kodak, though, it did just the opposite: taking a superior technology and making it marketable, it attempted to sell an inferior product as flawless. This strategy may have worked temporarily, but eventually, consumers realized the convenience and benefits of digital photography, which they did not find with Kodak.

Financial motives significantly influenced Kodak's strategy. The company's persistence in maintaining its film business aimed to extend the profitability of its film operations. One interviewee noted, "The return on assets in the film business was almost 100 points. It was a renewable resource business model. The money flowed as long as the technology stayed the same." This quote underscores the fundamental hope that technology would remain unchanged, allowing Kodak to continue benefiting from high film margins. This reluctance to pivot once again reflects the theory of "path dependency" (David, 1985). Instead of fully embracing the digital transition and marketing it effectively, Kodak continued along its established path of film photography. The company clung to a once-lucrative model even as it became increasingly unsustainable.

This strategy reflects the concept of "market-driven innovation," emphasizing the importance of aligning marketing efforts with consumer needs (Slater & Narver, 1998). Kodak failed to recognize and respond to its customers' evolving needs, instead promoting outdated technology that no longer met market demands.

Kodak's downfall was accelerated by its attachment to the past and ineffective marketing. As consumers increasingly favored brands that adopted digital technology, Kodak fell behind. The company's inability to reposition its messaging and fully embrace the future of photography gradually eroded its brand credibility, ultimately leading to its downfall. The term "brand inertia" (Ambler, 2000) sheds light on this issue. However, Kodak initially enjoyed robust brand equity due to its past successes; over time, this same equity hindered its ability to innovate and adapt to changing market conditions and dynamics ("A Kodak Team Effort," n.d.). The case of Kodak serves as a crucial warning: in dynamic markets, a company that does not move forward in marketing is at risk of being left behind.

Marketing Missteps: Campaigns That Clung to Film and Delayed Kodak's Digital Shift

Kodak's reluctance to embrace digital photography was evident in its strategy and marketing efforts. This resistance was reflected in several key campaigns that either attempted to prolong the dominance of film or failed to position Kodak as a true leader in the digital era.

The "Share Moments. Share Life." Campaign: Nostalgia Over Innovation

Kodak launched the "Share Moments. Share Life." campaign in the 2000s to maintain its emotional connection with consumers. Although the advertising attempted to incorporate digital products into its frame, it relied on the same nostalgic themes that had characterized Kodak's film-era dominance. These advertisements promoted the sentimental value of capturing and sharing moments, rather than the ease of technology use in digital photography.

This strategy emphasizes "brand nostalgia" in marketing (Holbrook & Schindler, 1989), where companies remain relevant by leveraging past emotional connections rather than adapting to current trends. However, this emotional link can be problematic when technology surpasses nostalgia. Kodak's failure to transition from nostalgic branding to an innovative digital narrative hindered its success and competitiveness.

This strategy never explained to customers the advantages of the digital camera. Instead, the campaign positioned Kodak as a film-first company rather than a digital leader. So, while Kodak was tiptoeing around its digital marketing, other companies, such as Sony and Canon, would claim the advantages of digital by directly marketing it. Kodak's overdependence on legacy branding rendered it oblivious to changes in consumer perception (Vinokurova & Kapoor, 2023). This oversight highlights the importance of strategic marketing alignment, which requires companies to synchronize their marketing strategies with market trends and technological advancements (Porter, 1996). Kodak's strategy failed to meet the rising demand for digital products, resulting in the marginalization of its brand in the digital era.

The Advantix Preview Camera: A Desperate Attempt to Extend Film

In the late 1990s, Kodak introduced the Advantix Preview Camera in an ill-conceived attempt to bridge the gap between film and digital photography. The Advantix system introduced an "innovative" way to preview images before development using film, attempting to offer the perceived advantages of digital photography without requiring film. Kodak spent enormous sums to promote this hybrid product, positioning it as a breakthrough rather than admitting that digital cameras made film-based solutions obsolete.

Kodak's reluctance to fully embrace digital technology, as examined through the "Innovation Adoption Curve" (Rogers, 1962), led to hybrid solutions that failed to attract early adopters seeking digital convenience.

The campaign surrounding the Advantix system highlighted a strategic flaw within Kodak: its reluctance to abandon film ("Kodak's Downfall Wasn't About Technology," n.d.). Instead of fully embracing digital technology and reallocating its marketing resources to promote its digital cameras, Kodak continued investing in film-based solutions, attempting to prolong its relevance. This ultimately resulted in consumer confusion and battered Kodak's credibility as a leader in emerging photography technology.

EasyShare Digital Cameras: Embracing the Future with Reluctance

Although Kodak did not enter the digital market with its EasyShare line until the early 2000s, its marketing approach remained rooted in the film era. The EasyShare campaign emphasized ease of use and familiarity instead of promoting the technology's groundbreaking features. EasyShare cameras should have been marketed as the state-of-the-art digital devices they were rather than presented as merely an evolution of film, which overlooked critical differentiators like storage capacity, editing capabilities, and internet connectivity.

This exemplifies the "product positioning" theory (Kotler & Keller, 2016), which asserts that a brand's marketing should create a clear and distinct image in the consumer's mind. Kodak's hesitation to position EasyShare as a genuine digital breakthrough hindered its ability to stand out from competitors who had already adopted digital-first marketing strategies.

The reluctance to promote digital as the future of photography ceded market dominance to competitors. While Sony, Canon, and Nikon heavily advertised the superior features of their digital cameras, Kodak struggled to transition beyond the transitional phase and establish itself as a digital-first company. Rather than solidifying its position in digital photography, the EasyShare campaign ultimately helped to brand Kodak as a company stuck in the past.

How Kodak's Marketing Fueled Its Demise

Kodak's marketing efforts, rather than aiding the company's shift to digital photography, actually obstructed it. The company's hesitation to abandon its film-centric messaging, which bridged outdated technology with modern technology, contributed to its decline. In contrast, competitors who fully embraced digital photography in their marketing gained consumer trust and captured

market dominance. Excessive reliance on legacy branding turned what could have been Kodak's greatest strength—its historical association with photography—into its greatest weakness, accelerating its downfall in the modern digital era.

Kodak's Strategy Toward Intellectual Property Protection and Its Impact on the Company's Bottom Line

Kodak's Patent Portfolio

Kodak's patent portfolio was one of the most extensive and valuable in the photography and imaging industry. For most of the 20th century, many patents relating to film technology, photographic chemicals, and digital imaging protected Kodak's innovations, which played a vital role in sustaining the company's market leadership.

Kodak's dedication to R&D was evident in its substantial investments in innovation. By the end of 2012, Kodak had amassed around 22,000 patents and other intellectual property across more than 160 countries. This included several advanced technologies, such as the first megapixel image sensor used in Apple's QuickTake Digital Camera, cameras with OLED displays, and other early innovations like Wi-Fi-enabled cameras. Outlined in the "dynamic capabilities" theory (Teece, 1997), these early efforts highlight Kodak's potential to lead in digital innovation, emphasizing a firm's ability to adapt and innovate in response to rapidly changing environments. However, Kodak failed to effectively leverage its dynamic capabilities in transitioning to digital photography.

Kodak's patent portfolio was crucial in creating a near-monopoly in film and photographic chemicals. Key innovations, such as the invention of Kodachrome and Ektachrome films, were patented, enabling Kodak to maintain exclusivity in production and preserve a competitive edge by preventing competitors from producing similar products. This strategy enabled Kodak to achieve and maintain its leading position in the film industry for many years. However, as Schumpeter's (1942) concept of "creative destruction" illustrates, Kodak's patents ultimately facilitated the disruptive innovation of digital photography. Although Kodak held patents for digital technologies, its inability to adapt in the face of change and its reliance on a vast array of outdated technology patents illustrate the dangers of depending solely on patented innovations in a rapidly evolving market landscape.

Kodak's extensive patent portfolio highlighted its commitment to ongoing innovation. The company invested tens of millions of dollars in R&D, exceeding \$500 million annually, for patents that span digital imaging to printing solutions, positioning Kodak as a leader in technology. Despite a formidable portfolio of patents, the digital era introduced numerous challenges for Kodak (Vinokurova & Kapoor, 2023). Its hesitation to fully embrace digital technology and failure to pivot effectively in the face of increasing competition challenged Kodak's once-dominant market position, most notably from Fujifilm, along with the rise of other Asian digital camera manufacturers.

By the time Kodak filed for Chapter 11 bankruptcy protection in 2012, it had eliminated tens of thousands of jobs and struggled significantly to adapt to rapid changes in the industry. In an attempt to recover, Kodak sold part of its patent portfolio, including 1,100 digital imaging patents, for \$525 million, considerably less than the projected \$2.6 billion. This deal highlighted Kodak's difficulty monetizing its intellectual property as its business model weakened. The remaining patents were licensed to a consortium of technology companies, further reducing the future revenue Kodak could generate from its once-lucrative portfolio.

Undoubtedly, Kodak's extensive patent portfolio was a cornerstone of its business strategy, providing both market protection and a significant source of revenue ("13-Berkeley Tech L J," n.d.). However, its failure to adapt to the digital revolution, particularly its inability to effectively leverage intellectual property against emerging competition, ultimately led to its downfall.

Kodak's Licensing Strategy

Kodak's licensing strategy was crucial to its business model, particularly during its transition from traditional film to digital imaging technologies. The company effectively utilized its extensive patent portfolio for many years, employing it not only as a defensive tool but also as a significant revenue-generating mechanism. Licensing agreements enabled Kodak to monetize its innovations while retaining control of its intellectual property without necessarily producing anything. This strategic approach aligns with the "open innovation" paradigm (Chesbrough, 2003), where firms, such as Kodak, seek to profit from their innovations through external partnerships. However, Kodak's over-reliance on licensing, rather than commercializing its own innovations, illustrates a failure in innovation management, as the company missed opportunities to internalize technological shifts and build a sustainable business model in digital imaging.

Kodak's patent portfolio served as a formidable cash cow. Between 2003 and 2011, the company generated over \$3 billion by licensing its intellectual property to other firms. Licensing its innovations ensured a steady income stream during the shift from traditional film to digital imaging technologies. This became particularly important as its traditional film business declined and digital technologies rapidly emerged.

Kodak's licensing strategy in the early 2000s yielded significant rewards through a consistent income stream. By licensing its patents to a range of entities, including competitors in the imaging industry, tech giants, and manufacturers, Kodak was able to unlock value from its innovations. From an organizational theory perspective, Kodak's reliance on licensing agreements aligns with "network governance" (Powell, 1990), where firms seek to extract value from innovation by collaborating with external partners. However, Kodak's inability to scale this model and integrate digital innovation into its own products reflects a deficiency in "absorptive capacity" (Cohen & Levinthal, 1990), where the company struggled to recognize external knowledge and leverage new digital technologies despite its extensive patent portfolio.

This revenue was crucial for sustaining the company as it transitioned from the declining film market to the booming digital landscape ("February-March-2013," n.d.). These licensing agreements extended beyond mere royalty payments and included strategic alliances with major players, such as Apple and Microsoft. By licensing its patents for digital cameras, printers, and consumer electronics, Kodak remained relevant in the growing digital market.

Kodak's licensing efforts weren't confined to its core imaging business. The company expanded its reach across consumer electronics, printing, and digital imaging solutions. This wide-ranging approach helped hedge the risks associated with the decline of Kodak's film business and cushioned the company during its transition into the digital era. Licensing agreements, such as the one signed with Apple for the QuickTake camera, significantly contributed to the company's revenues, even as Kodak struggled to sell its line of digital cameras amid heavy competition.

Despite its early successes, Kodak's licensing strategy faced increasing challenges as the digital landscape evolved. As the market for digital imaging products grew, Kodak encountered competitors that could rapidly innovate and adapt to new technologies. Kodak continued to generate substantial revenues through licensing; however, while it once dominated the value capture from film products, it struggled to capture the rapidly expanding digital market in a similar manner.

As one industry expert mentioned in an interview, "Kodak did what it had to do with its intellectual property" (Participant 4, personal communication). The company had a significant portfolio, but couldn't effectively manage it as technology evolved. Although the patents were valuable, Kodak was unable to keep pace with the changing market. Even though Kodak faced challenges in the digital camera market, it successfully generated significant revenue through licensing agreements with its rivals.

Kodak's ability to license its IP initially generated the necessary revenue to initiate its transition into the digital imaging landscape; however, the fast-paced digital environment outperformed Kodak.

Kodak's Litigation Strategy

As Kodak faced new technologies, litigation played a crucial role in defending its intellectual property and maintaining its market position in the photography and imaging industries. As competitors surpassed Kodak, the company vigorously defended its patents against rivals. Litigation served both as a means of defense and as a strategic tool for generating revenue and maintaining a competitive advantage in an ever-evolving market. Kodak's legal approach highlights a dependence on a "cost leadership" model (Porter, 1980), with the company aiming to maintain market dominance by enforcing its intellectual property rights. Although litigation safeguarded Kodak's legacy technology, it did not resolve the core problem: the company's struggle to develop and market innovative digital products to keep pace with more agile competitors.

In the digital age, Kodak's litigation strategy evolved as the company sought to protect its expanding patent portfolio. A notable instance of this approach occurred in 2010 when Kodak filed a lawsuit against Apple and Research in Motion (RIM) for infringing on its digital imaging patents pertaining to their smartphones. Initially, the U.S. International Trade Commission (ITC) ruled in favor of Kodak; however, the case subsequently underwent appeals and various legal maneuvers, resulting in mixed outcomes. This litigation strategy aligns with the principles of "transaction cost economics" (Williamson, 1981), whereby Kodak employed litigation to navigate market exchanges and reduce transaction costs in the face of escalating competition. Nevertheless, litigation alone proved inadequate to address Kodak's broader strategic failure to innovate and adapt to an evolving market landscape. While these lawsuits presented considerable challenges for the company, they exemplify the lengths to which a corporation may go to assert its rights and protect its intellectual property in a rapidly changing digital market.

Kodak's litigation was not only defensive, but it also became a key revenue source as the traditional film business declined and the digital market grew increasingly crowded. As one insider noted, "Kodak would never have emerged from bankruptcy without pursuing litigation. It provided a significant revenue stream as film sales fell, generating hundreds of millions of dollars" (Participant 4, personal communication). Kodak's litigation strategy concerning its patents was vital for the company's financial survival. By pursuing settlements and licensing agreements with other companies that utilized its intellectual property, Kodak was able to leverage these assets even as its core business faced challenges in adapting to digital technologies.

Aggressive litigation generated revenue and deterred potential patent infringers. Kodak's willingness to vigorously defend its IP sent a strong message to competitors that the company would not tolerate the unauthorized use of its innovations. This defensive posture helped protect Kodak's market share and retain its competitive edge, even as new players emerged in the digital imaging market.

As time progressed and technology evolved, Kodak encountered increasing challenges in patent litigation. The fast-paced nature of innovation in the digital realm left Kodak increasingly entangled in numerous legal complications. Interpretations of patent law often vary significantly, complicating efforts to prove infringement. Additionally, extended legal battles, coupled with the declining profitability of its core business, further pressured Kodak. The costs of litigation, which included substantial legal fees and settlements, further strained the company's resources during its transition to digital.

Ultimately, Kodak's litigation strategy played a pivotal role in boosting revenue and protecting its rights within a rapidly evolving market. While it successfully generated much-needed funds during the company's financial struggles, it also underscored the challenges of managing intellectual property amidst ongoing technological and competitive changes (Vinokurova & Kapoor, 2023). As Kodak maneuvered through the intricate landscape of patent litigation, it

became increasingly evident that, despite its value as a tool, litigation could not address the company's more pressing business challenges.

Kodak IP Strategies Impact on its Bottom Line

Kodak's strategies for leveraging its intellectual property played a significant role in shaping its financial performance. During the company's transition from film to digital imaging, these intellectual property decisions generated critical revenue. However, Kodak's failure to effectively manage and adapt this strategy in the digital age ultimately led to its decline. From a strategic management perspective, Kodak's over-reliance on intellectual property illustrates a failure to manage its innovation portfolio effectively. The company focused on maximizing short-term revenues through licensing and litigation, rather than investing in research and development to facilitate its transition into the digital era. This approach reflects a mismanagement of what Tushman and O'Reilly (1996) refer to as "innovative capacity," emphasizing the need for firms to adapt and evolve in response to technological disruptions, rather than attempting to outpace them.

Positive Impact

Kodak's patent licensing represents one of the most successful IP strategies. Licensing allowed Kodak to earn significant revenue from its innovations without requiring actual production. This mirrors "rent-seeking behavior" (Tullock, 1980), where Kodak maximized returns by exploiting its intellectual property through licensing rather than advancing its product development. While the strategy generated revenue, it ultimately proved unsustainable as the firm failed to invest in innovations for the digital market. As one interviewee said, "When our competitors sold digital cameras using our intellectual property, we made more" (Participant 4, personal communication)—underscoring how, even when Kodak couldn't leverage their innovations toward a marketable product, they could effectively leverage their intellectual property through licensing agreements in the digital realm.

Kodak's dominance in the photographic film market stemmed largely from its vast patent portfolio. However, during the digital revolution, Kodak sought to license its imaging patents to industry giants like Apple and Microsoft. This strategic approach to selective licensing allowed the company to remain relevant in the evolving digital landscape and generated significant revenue during its transitional phase. Rather than competing directly in digital camera sales, Kodak chose to license its software to other manufacturers, a strategy that ultimately fell short of success. This lack of success cannot be attributed to a shortage of innovation; instead, it was Kodak management's failure to effectively commercialize its inventions that hindered progress. While leveraging its intellectual property through licensing agreements provided short-term benefits, these agreements were not permanent solutions. Although the company might have encountered financial distress sooner without these licenses, a clear vision for the future remained essential for Kodak's resurgence.

Negative Impact

Despite holding valuable patents in digital imaging technology, Kodak's resistance to change and adaptability during the digital revolution hindered its progress. This is a classic example of "organizational inertia" (Hannan & Freeman, 1984), where Kodak's entrenched organizational culture, centered on traditional film technology, limited its capacity to innovate and adopt digital technologies. This cultural resistance to change within the organization exacerbated Kodak's challenges in effectively managing disruptive innovation. The company continued to rely on its film business, causing it to miss opportunities for innovation and advancement in the digital space. While Kodak was clinging to its intellectual property, which gave it false hope and dominance, companies like Fujifilm quickly surpassed it in the digital camera market.

While the revenues from licensing were strong support to fall back on, it also made Kodak dependent on licensing agreements rather than developing and marketing its innovations. As one interviewee mentioned, "Kodak did what it had to do with its IP to stay afloat, but they lacked the business acumen to monetize it properly" (Participant 6, personal communication). This suggests that although the strategy sustained the company, it failed to establish a foundation for its long-term success. Not being able to create a new business model based on its digital patents finally weakened Kodak's position.

The hard truth of Kodak's decline was revealed in its 2012 Chapter 11 bankruptcy filing. During the bankruptcy proceedings, Kodak sold many of its patents for significantly less than their projected value, highlighting deficiencies in Kodak's intellectual property strategy. Despite having a valuable patent portfolio, Kodak struggled to effectively utilize its intellectual property in ways that would foster significant, long-term growth. Additionally, a former employee remarked, "Kodak would never have emerged from bankruptcy without pursuing litigation. This generated a significant revenue stream while film sales were declining." This illustrates Kodak's predicament, which led to the sale of its intellectual property at a fire sale price. Although litigation provided short-term relief, the eventual sale of its patents marked a significant turning point in the company's ability to utilize its intellectual assets.

Ultimate Impact on the Bottom Line

While leveraging its intellectual property allowed the company to maintain its leadership in the film market, reliance on its IP portfolio inhibited its ability to transition into a changed market. The notion of "strategic fit" (Hrebiniak & Joyce, 1985) emphasizes the disconnect between Kodak's business strategy, which was predominantly centered on film, and the swiftly evolving digital landscape. Kodak's struggle to adjust its corporate strategy in response to the ongoing digital disruption significantly contributed to its downfall. Although it possessed valuable intellectual property, Kodak's shortcomings in foresight and innovation management prevented it from seizing emerging opportunities in the digital realm of imaging.

For Kodak, a company that built its success on recurring film revenue, leveraging its intellectual property brought short-term stability through digital disruption. Still, these IP strategies compromised long-term innovation and potential monetization of its digital patents, as they did with film. While some viewed the company's IP strategy as survivalist, one interviewee remarked, "Kodak had no other choice: it had to focus on IP, given its past failure to manage innovation internally" (Participant 4, personal communication). Others criticized the company's heavy litigation approach and short-term licensing deals, which hindered Kodak from developing a robust business unit necessary to monetize its IP fully. Kodak's IP strategy sustained the company as it transitioned to digital technology. However, Kodak's reluctance to fully embrace digital technology early on was its downfall. Kodak's IP strategies were necessary, but the company could not continue in the same direction, with licensing revenues diminishing indefinitely. Kodak's IP strategy was successful and could have saved the company if it had reallocated that revenue into new long-term investments to secure its future.

Underestimation of Digital Photography

Kodak's decline is frequently analyzed as a case study in business and innovation, with the company's underestimation of digital photography's disruptive potential often cited as a primary cause. While Kodak wasn't entirely oblivious to digital photography's possibilities when it invented the first digital camera in 1975, its leadership hesitated, fearing the cannibalization of its highly profitable film business. This exemplifies the "path dependence" theory (David, 1985) and "innovation myopia" (Christensen, 1997), which describes a phenomenon where companies focus too much on sustaining innovations tied to their current business model, overlooking the opportunities presented by disruptive innovations that meet new customer needs. This hesitation stemmed from Kodak's market dominance—a near-monopoly in film-based photography—and a belief that film would remain the dominant revenue stream, willfully underestimating the accelerating pace of digital evolution. As one interviewee said, "Kodak had a projection in 2003 that the film sales to consumers would decrease 10 % in the next five years. And it actually dropped like 25 % that year, another 80 % in the next five years" (Participant 2, personal communication).

Kodak's initial hesitation resulted in a series of strategic missteps. As the company focused on protecting its film business and investing heavily in film technologies, it overlooked the expanding digital landscape and the obsolescence it would bring to film. When Kodak finally entered the digital market, it was already trailing established competitors, such as Sony, Canon, and Nikon. This delayed entry led to difficulties in securing a foothold in the industry. Additionally, Kodak's business model, which was centered on film and supplies, was misaligned with the hardware-driven digital market, further complicating its success.

Internal organizational and cultural challenges exacerbated strategic missteps. Kodak's film-centric corporate culture fostered resistance to change. Employees and executives were reluctant to abandon the familiar and profitable film business, which slowed innovation and adaptation. A

lack of visionary leadership compounded this issue; Kodak's leaders failed to articulate a clear vision for the company's digital future, hindering their ability to navigate the transition.

Although the company had the technology to lead the digital revolution, it lacked leaders with the foresight to drive change. As highlighted by the "leadership as sensemaking" theory (Weick, 1995), Kodak's executives failed to effectively interpret or respond to signals from the rapidly evolving market, leading to missed opportunities and slow responses to disruptive forces. Instead of proactively shaping Kodak's future and embracing digital transformation, its leadership remained reactive, clinging to outdated business models that had once been successful. This leadership vision gap highlights the need for "strategic foresight" (Bower & Christensen, 1995)—the ability to anticipate shifts in technological and consumer behavior and position the company to lead rather than follow.

Strategic missteps, organizational challenges, and financial consequences contributed to Kodak's decline. While Kodak was aware of digital technology and had even pioneered early innovations, its reluctance to embrace the digital revolution and its overreliance on film ultimately proved fatal. Although the belief that Kodak's decline stemmed from underestimating digital photography contains some truth, the absence of a consistent business model, steady leadership and direction, and sound reasoning for its investments holds greater significance, as nobody anticipated the rapid shift to digital. Kodak did not overlook digital photography; they chose to maintain their highly profitable film business over a less profitable digital photography business model.

Lessons Learned

Kodak's collapse serves as a profound illustration of the dilemmas organizations face during technological disruption. This case study offers essential lessons that provide valuable insights for companies navigating changing industries. Kodak's experience highlights the critical importance of embracing disruptive innovation (Christensen, 1997) and the consequences of failing to do so. Kodak's development of the digital camera in 1975, along with its refusal to commercialize it out of fear of disrupting its film business, demonstrates the risks associated with obstructing progress. Companies need to acknowledge and respond to disruptive technologies, rather than clinging to traditional methods of operation, even if it means forgoing short-term profits. This aversion to change is also closely tied to another key observation: the danger of becoming overly dependent on established business models, also known as "path dependence" theory (David, 1985). Kodak's past reliance on film, despite the evident consumer demand for digital, is a testament to the risk of clinging to legacy revenue streams. Businesses must be willing to adapt their models as technology and consumer habits evolve.

Kodak's failure highlights the importance of proactive initiative rather than reactive progress. By the time they fully committed to digital photography, competitors such as Sony, Canon, and Fujifilm had already established a strong market presence. This only emphasizes the value of predicting shifts in the industry and making bold, strategic moves before losing opportunities. Overcoming corporate inertia is crucial. Kodak's strong ties to its film sector, even as consumer preferences evolved, highlight the danger of "organizational inertia" (Hannan & Freeman, 1984). Internal resistance, particularly from factions committed to maintaining the status quo—illustrated by Kodak's "Film Mafia" (Participant 7, personal communication)—can suppress innovation and obstruct necessary transformations. It's essential to cultivate an adaptable organizational culture that welcomes change. This demands visionary and courageous leadership. Kodak's executives failed to embrace digital photography, underscoring the necessity for robust leaders capable of making difficult choices for long-term success, even when those choices may be unpopular in the short term.

Effective marketing strategies that align with technological innovation must be implemented to drive success. Kodak's persistence in marketing film, unlike its competitors who promoted the advantages of digital photography, highlights an imbalance that occurs when brand communication fails to keep pace with technological advancements. Diversification also needs to be managed strategically. Kodak's venture into pharmaceuticals and inkjet printing, which are not its core competency areas, illustrates the risks of poorly planned diversification. New initiatives must be founded on current capabilities and expertise. Intellectual property and patents are valuable assets, but not the key to success. Kodak's failure to effectively utilize its patents for digital imaging demonstrates that intellectual property should be employed to drive innovation, not just to produce revenue.

Ultimately, Kodak's failure highlights the importance of understanding consumer trends. Disregarding the growing trend towards digital photography and instant sharing proved catastrophic. Companies must remain attuned to customer needs and respond accordingly. Ultimately, a robust business model is more crucial than technology itself. Kodak had cuttingedge R&D facilities but lacked a viable digital business strategy. Innovation must be paired with a solid commercial strategy for lasting sustainability ("13-Berkeley Tech L J," n.d.). Kodak's story serves as a reminder that forward-thinking leadership, resilience, and a willingness to change are essential for survival in the face of technological disruptions.

Recommendations for the Future

Kodak's decline serves as a critical case study for businesses navigating the complexities of evolving technology. For Kodak and similar enterprises to succeed in the future, it is essential to cultivate a culture of innovation, maintain adaptability, and develop a deep understanding of consumer preferences as circumstances evolve. Although Kodak is much smaller than it once was, establishing a strategic objective, fostering a diverse group of leaders, and ensuring that varied perspectives are heard in strategic discussions will create necessary checks and balances for future initiatives. This approach is particularly crucial in eliminating factions within the company, such as the "Film Mafia" that resisted change.

Recently, Kodak has redirected its focus toward commercial printing, advanced materials and chemicals, motion picture film, and brand licensing, which has helped emphasize its core competencies. However, to sustain the company further into the future, it is imperative that they also invest in modern initiatives.

Kodak's management must cultivate a leadership style proficient at navigating change and making effective decisions. Emphasizing agility and flexibility within the corporate culture will empower leaders to make informed, data-driven decisions, take calculated risks, and swiftly respond to changes in the market landscape. Moreover, leadership training with a strong emphasis on digital transformation will be crucial in achieving this objective. Alongside enhancing its internal capabilities, Kodak should consider strategic expansion into promising adjacent markets.

To remain competitive, Kodak must invest significantly in disruptive innovations such as Artificial Intelligence, machine learning, and automation. By learning from past failures in partnerships, Kodak can leverage its historic expertise and core competencies to collaborate with AI startups and research institutions, thereby accelerating the innovation process. Additionally, a cultural transformation is necessary; Kodak should foster a culture of adaptability and continuous learning, moving beyond its previous inflexibilities. Creating internal innovation centers and engaging in market testing will encourage the internal adoption of new technologies (Shih, n.d.).

Furthermore, Kodak must prioritize enhancing its connection with consumers. Despite the passage of time, Kodak continues to retain brand equity globally. Today's consumers desire to share digital content quickly and enjoy personalized experiences online. By leveraging its brand heritage, Kodak can develop user-friendly mobile apps that align with current consumer demands and its past expertise in the photography industry. Employing AI tools will further boost customer engagement. Collaborating with technology leaders, smartphone manufacturers, and cloud services can enrich Kodak's offerings. Additionally, partnerships with AR/VR companies and digital content platforms could further strengthen Kodak's position in the rapidly evolving digital landscape. By leveraging disruptive technologies, utilizing core competencies, and building robust partnerships, Kodak can reach a wider audience and remain relevant.

In today's environmentally conscious society, Kodak has a strategic opportunity to align sustainability with corporate growth by adopting eco-friendly practices across its operations. By focusing on recyclable imaging materials, utilizing waterless and energy-efficient printing technologies, and implementing sustainable chemical processes, Kodak can establish itself as a responsible leader in the rapidly growing industrial printing and packaging sectors. These sectors, particularly e-commerce packaging, are expanding due to global changes in consumer behavior and logistics. As demand for short-run, customizable, and sustainable packaging solutions rises, Kodak's advanced inkjet and digital printing systems are well-positioned to meet these needs. Engaging in this market not only leverages Kodak's strengths but also enhances its profile in a competitive landscape. Strong Environmental, Social, and Governance (ESG)

initiatives can further enhance Kodak's attractiveness. By showcasing environmental responsibility through practical ESG efforts, Kodak can attract investment capital and establish lasting trust with clients who are increasingly integrating sustainability into their supply chain decisions.

Kodak has a significant opportunity to reinvent itself by focusing on its core strengths in printing technology and materials science, while also adapting to market trends toward sustainability and customization. By embracing eco-friendly innovations and developing a more strategic business approach, Kodak can position itself as a leader in industrial and packaging solutions. This strategy not only enhances its relevance in a competitive landscape but also fosters long-term growth through innovation, adaptability, and a profound understanding of evolving industry and consumer demands ("13-Berkeley Tech L J," n.d.).

Conclusion

Kodak's story serves as a compelling example of how technological disruption, strategic inertia, and organizational culture can contribute to the downfall of even the most powerful industry leaders. Initially, Kodak thrived in popularizing photography and making significant technological advances, including the development of the first digital camera. However, the company ultimately succumbed to the very innovations it helped to create. Its decline was not due to a lack of technological insight; instead, it resulted from strategic missteps, inflexible operational practices, and an inability to adapt its business model in a rapidly evolving digital landscape.

From the perspective of Christensen's Disruptive Innovation theory, Kodak exemplifies the "Innovator's Dilemma" by prioritizing sustaining advancements in film photography while overlooking the disruptive potential of digital imaging. This strategic oversight stemmed from a strong attachment to established revenue sources, which prevented the company from cannibalizing its film business for a less immediately profitable yet transformative technology.

Path Dependence theory (David, 1985) offers more profound insight into Kodak's decline: its early successes in film created a psychological and strategic trap that bound the company to a nonviable business model. Organizational Inertia (Hannan & Freeman, 1984) exacerbated this issue, as rigid frameworks and a deeply ingrained "film-first" mentality, exemplified by the so-called "Film Mafia," stifled timely and decisive changes. Even when Kodak developed disruptive technologies internally, its leadership consistently hesitated to bring these innovations to market, revealing a systemic failure to strike a balance between exploration and exploitation (March, 1991).

Moreover, Kodak's strategic errors underscore a weakness in Dynamic Capabilities (Teece, 1997, 2010). Although Kodak recognized technological shifts, it struggled to effectively leverage and adapt its resources to maintain competitiveness in the digital landscape. Its delayed and reactive approach to digital cameras, coupled with failed diversifications into pharmaceuticals and inkjet

printing, illustrated a lack of strategic adaptability and an overconfidence in its transferable skills, echoing concepts from Penrose's Theory of the Growth of the Firm (1959) and Henderson and Clark's Architectural Innovation theory (1990).

Furthermore, Chesbrough's Open Innovation framework (2003) highlights Kodak's inward-focused R&D strategy as a significant disadvantage. Unlike competitors such as Sony, Canon, and Fujifilm, Kodak neglected to explore external collaborations that could have accelerated its digital transformation, instead relying solely on internal initiatives and a defensive posture around patents and litigation. While Kodak's intellectual property initially generated revenue, its failure to transform these assets into sustainable, consumer-focused innovations ultimately eroded its competitive edge.

Leadership failures after 1980, particularly under George Fisher and Antonio Pérez, further underscore the need for coherent and adaptable leadership during times of disruption. Kodak's leaders were often either too focused on protecting existing businesses or too eager to venture into new markets that did not align with the company's strengths. As highlighted by Schein's Organizational Culture model (2010), the lack of a cohesive cultural and strategic vision fragmented Kodak's internal unity, hindering its capacity to navigate transformation effectively.

In conclusion, Kodak's rise and fall convey a vital lesson for businesses across all sectors: success in a stable environment may lay the groundwork for failure during disruptive periods. In a world where technological advancements continually redefine markets, the Kodak case serves as a potent reminder that adaptability, strategic foresight, organizational ambidexterity (Tushman & O'Reilly, 1996), and a willingness to embrace change are not mere options but essential for survival.

Future organizations should learn from Kodak's experience by continuously challenging their assumptions, investing in both sustaining technologies and disruptive innovations, nurturing cultures that promote exploration, and fostering leadership capable of uniting and adapting organizations amid turbulence. By doing this, they can strive to withstand disruption and ultimately thrive.

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Appendix

Interview Participant Biographies

Participant 1

This individual is a credible expert with 32 years of experience as a senior research fellow at Eastman Kodak, focusing on systems modeling, photographic simulation, and algorithms. Their contributions to filters and lighting techniques garnered them two Technical Achievement Awards from the Academy of Motion Picture Arts and Sciences.

Participant 2

This individual boasts over 30 years of experience at Eastman Kodak, starting as a research scientist and significantly contributing to the development of digital imaging systems. Their expertise was instrumental in the shift from film to digital photography, marking a critical era in Kodak's evolution. They participated in numerous research and development initiatives, enhancing Kodak's standing in the imaging industry.

Participant 3

This individual had an impressive career at Eastman Kodak, playing a vital role in advancing imaging technology. Their involvement in research and development projects, particularly in digital imaging systems, was instrumental in transitioning Kodak from traditional film to digital photography. This work significantly enhanced Kodak's technological capabilities and reinforced its competitive position in the imaging industry.

Participant 4

With a distinguished career spanning over 41 years at Eastman Kodak, this individual served in key roles such as Intellectual Property Technology Director, Senior Patent Agent, and Research Scientist. They managed Kodak's intellectual property portfolio and prepared and prosecuted more than 450 patent applications. Their expertise in developing image processing algorithms and digital color management processes significantly contributed to the field. Additionally, they authored numerous journal articles and conference papers and hold over 100 patents, underscoring their credibility and innovation in technology.

Participant 5

This individual had a notable career at Eastman Kodak, significantly contributing to the corporate finance team in the Treasury organization. They managed cash, borrowings, and derivatives, alongside handling foreign currencies and conducting financial health analyses. Their expertise supported key corporate events, including spinoffs and acquisitions, playing a vital role in the company's economic stability and strategic growth.

Participant 6

With over 22 years at Eastman Kodak as a Senior Research Scientist, this individual significantly influenced the company's research and development, especially in imaging technology. They were crucial in advancing Kodak's transition from traditional film to digital photography, enhancing the company's technological evolution and competitive edge in the industry.

Participant 7

This individual boasts an extensive and influential career at Eastman Kodak, where they held multiple pivotal roles across several decades. Key achievements include managing capital assets for a significant manufacturing operation and implementing a program that effectively tracked \$125 million in assets, resulting in a \$3 million reduction in capital asset burden. Additionally, they played a crucial role in transitioning Light Management Film from concept to marketable product and ensured Y2K compliance across a vast international manufacturing system. Their experience further extends to designing, building, and maintaining automation equipment, underscoring their technical expertise and versatility.