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Unethical Dimensions of Business: The Tho-Radia Cosmetics Case Study

ABSTRACT

The case of Tho-Radia Cosmetics, a French company established in the early 20th century, represents a remarkable and controversial episode in the cosmetics industry. The company gained notoriety for marketing and selling beauty products containing radioactive substances, particularly radium and thorium. The research method employed in this analysis is a case study. While not designed to produce testable generalizations, this approach offers an illustrative examination that can provide valuable insights into business ethics. The primary goal of this case study was to uncover the factors that prompted Tho-Radia Cosmetics to alter its unethical practices. The secondary goal was to determine whether the company had sufficient information to change its product and business strategy, despite the absence of legal regulations at the time. The findings indicate that 1. the key factor driving the company to change its practices was a new law regarding radioactive substances. Consequently, the reason for the company's shift was not due to an awareness of radiation's harmful effects but was rather a response to regulatory changes. The secondary conclusion shows that Tho-Radia Cosmetics was aware of the real effects of using radioactive substances, yet it continued to offer cosmetics containing radium and thorium to its customers. The case study is presented in the context of business ethics.

KEYWORDS: business ethics, marketing, radioactive products, cosmetics industry, France

STRESZCZENIE

Nieetyczne wymiary biznesu: studium przypadku kosmetyków Tho-radia

Kontrowersyjnym epizodem w branży kosmetycznej jest przypadek Tho-Radia Cosmetics – francuskiej firmy powstałej na początku XX w., która zyskała rozgłos dzięki sprzedaży produktów kosmetycznych zawierających

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substancje radioaktywne, zwłaszcza rad i tor. Artykuł ukazuje początki przedsiębiorstwa, jego rozwój opierający się na marketingowej strategii wykorzystującej nazwisko Curie oraz nieprawdziwych informacjach o produktach, i ostateczne zaprzestanie produkcji. Metodą badawczą zastosowaną w niniejszej analizie jest studium przypadku i choć metoda ta nie upoważnia do uogólnień, oferuje jednak wyniki, które mogą dostarczyć cennych wniosków i wiedzy o biznesie. Głównym celem przedstawionego studium przypadku było więc odkrycie czynników, które skłoniły firmę Tho-Radia Cosmetics do zmiany swoich nieetycznych praktyk. Drugim celem było ustalenie, czy firma posiadała wystarczające informacje, aby pomimo nieistniejących regulacji prawnych zmienić swój produkt i strategię biznesową. Zastosowano tutaj analizę czasową wydarzeń. Wniosek wynikający z celu badawczego nr 1 mówi, iż głównym czynnikiem, który skłonił firmę do zmiany postępowania, było nowe prawo dotyczące substancji radioaktywnych. Podstawą zmiany postępowania firmy nie były zatem informacje o szkodliwych skutkach promieniowania, lecz zmiana przepisów. Konkluzja dotycząca celu nr 2 pokazuje, że Tho-Radia Cosmetics знаła rzeczywiste skutki używania substancji radioaktywnych, a mimo to oferowała klientom kosmetyki z radem i torem. Analiza działalności firmy przedstawiona została w kontekście etyki biznesu.

SŁOWA KLUCZE: etyka biznesu, marketing, produkty radioaktywne, przemysł kosmetyczny, Francja

Introduction

The European cosmetics market is a dynamic and significant industry, with skincare products and toiletries, including soap, shampoo, and toothpaste, forming the largest categories. These products account for 44.4% of the total global cosmetics exports, as reported by Statista (2023). The skincare segment alone reached a market value of approximately 21.5 billion euros in 2020. Germany is the leading consumer market, spending about 13.6 billion euros on cosmetics, followed closely by France, Italy, the United Kingdom, and Spain. Highlighting the industry's importance, the cosmetics sector is observed to grow at an annual rate of 3.8%, with the beauty, skincare, and decorative cosmetics segments projected to expand by 6% annually (Kolmar, 2023; Raport Banku PKO BP, 2023). In 2022, L'Oréal Paris was valued at roughly 9.7 billion euros, making it the top European cosmetic brand. Established in the early 20th century, this French personal care company has not only dominated the European market but also gained global recognition (Statista, 2023).

Ethical practices in business, particularly in the cosmetics industry, are essential for long-term success. Moreover, these practices play a crucial role in building trust with customers and enhancing a company's reputation.

In this context, trust is understood as “confident positive expectations regarding another’s conduct”, specifically, consumer trust in entrepreneurs (Czakon et al., 2022). Strong ethical standards in companies give top priority to the safety and well-being of consumers, a critical aspect in an industry where health and well-being are directly impacted by the products. According to Coelho et al. (2023), focusing on consumer welfare fosters trust, encourages repeat business, and generates positive word-of-mouth referrals. Additionally, ethical practices contribute to a positive public image, attracting consumers who seek to align with brands that share their values. Businesses that adhere to ethical standards are also more likely to retain skilled employees, as workers tend to favor organizations that match their values and treat them fairly.

Being ethical in business involves operating with integrity, honesty, and a commitment to principles that prioritize stakeholder well-being, society, and the environment, along with profit (Oswald & Mascarenhas, 2019; Hatami, Hermes, & Firoozi, 2023; Roy et al., 2024). This approach encompasses fair treatment of employees, responsible environmental stewardship, transparent marketing and financial practices, and delivering high-quality products that provide value to customers. Business ethics involves aligning actions and decisions with a strong moral compass, taking into account both the business environment and internal company activities.

Conversely, unethical practices in business often involve actions that violate moral principles and values (Gould, 2017; Rousselet et al., 2020). Such practices can include fraud, deception, unfair labor practices, price gouging, unethical supply chain management, and environmental negligence. The cosmetics industry, being highly developmental and innovative, often faces challenges related to the safety of new ingredients and product effectiveness. Although many countries have established robust legal regulations, the global regulatory framework is not always sufficient to prevent unethical practices. This was true 100 years ago and remains so in some instances today.

A notable case in the history of the cosmetics industry is Tho-Radia, a French company operating in the 1930s. Founded by pharmacist Alexis Moussalli and doctor Alfred Curie, Tho-Radia Cosmetics gained attention for incorporating radioactive elements such as radium and thorium into their products, marketing them as effective treatments for wrinkles and as skin tonics. This approach was common in the 1930s, with many companies using radioactive ingredients in cosmetics. However, the health risks associated with these products eventually led to their ban post-World War II, prompting Tho-Radia to shift its focus to non-radioactive cosmetics and was ultimately acquired by L’Oréal.

This study aims to examine how Tho-Radia engaged in unethical value creation through new product development (Dyduch et al., 2023), and to identify the point at which Tho-Radia decided to change its policy. The goal of the analysis is to determine the factors what stimulated this shift and to prove that the company could have modified its practices even in the absence of legal regulations at the time. The significance of this study lies in providing insights for industry stakeholders, policymakers, and consumers, namely: 1) the analysis shows the need to exert pressure from stakeholders to make companies more ethical and transparent; 2) the Tho-Radia example demonstrates the importance of regulatory oversight in the cosmetics industry; 3) this case also highlights the importance of education and awareness regarding product ingredients and their potential risks for consumers.

Literature review

Ethics concerns the fundamental aspects and reasons behind morality, with morality encompassing moral judgments, standards, and principles of behavior (Leonidou et al., 2018). Ethics pertains to conduct, more specifically, an individual's moral behavior within the context of society. The degree to which one's actions align with the accepted norms of society is commonly employed as a measure of their ethical conduct (Sausser, 2005). Given the diversity of standards governing societal conduct, ethical behavior is frequently defined in relation to specific situations. However, it can be said that business ethics, as a set of clearly defined guidelines and norms, assists businesspeople in discerning right and wrong actions in the workplace and the market (Husted & Allen, 2008). In today's world, business ethics is an extensive field that includes issues such as animal testing, environmental pollution, child labor, equal treatment of employees, harmful ingredients in products, and misleading advertisements, among others.

The discourse on ethics in business can be traced back to ancient history, including the Bible and the Greeks (Smith and Quelch, 1992). Central to this debate is typically the critique of the pursuit of financial profit and the resulting moral decline. Many critics view this pursuit as the core issue in marketing – not only the aim to offer products and services in exchange for value, but also the intent to generate wealth through these activities, potentially leading to the exploitation of others (Amine, 1996; Carrigan et al., 2005). Therefore, the key issue in both business ethics and marketing ethics is gaining unauthorized profits by exploiting consumers and suppliers, often by taking advantage of their ignorance or weaker bargaining position. From the 1960s, there have been ongoing debates about the logical foundations marketers should use to determine what is “right”,

not only in domestic but also in international business, not just in selling, but also producing and promoting products (Bartels, 1967; Payne & Pressley, 2013). This debate appears to remain relevant today.

In both past and current publications, scholars have focused on topics such as ethical products and sales, consumers in vulnerable positions, and ethical marketing research, but above all, on ethical advertising and promotion (Laczniak & Murphy, 1992; Amine, 1996; Hofstede, 2001; Hosmer, 2003; Eagle et al., 2014). Defining ethics in advertising is a complex task due to the multifaceted and diverse nature of ethics. Nonetheless, there is a growing scholarly interest in the realm of “ad ethics” (Eagle et al., 2014). It is generally agreed that advertising constitutes the most ethically sensitive area within marketing. Critics argue that advertising reinforces stereotypes, promotes excessive materialism, and often employs manipulative and persuasive techniques. While several studies have explored consumer reactions to specific aspects of ad ethics, public opinion polls consistently rank advertisers as among the least ethical professionals (Shabbir et al., 2019).

Ethics can be understood a form of social contract that enables individuals and societies to function and develop safely (Norman, 2013; Carrigan et al., 2005). It encompasses several fundamental aspects. Firstly, ethics pertains to firmly established principles of right and wrong, which provide guidelines for appropriate behavior, typically in the context of responsibilities, societal benefits, fairness, and specific virtues. Ethical principles also promote virtues such as honesty, compassion, and loyalty. Additionally, ethics includes standards related to human rights, such as the right to life, freedom from harm, and privacy. These standards form a robust foundation for ethical conduct because they are based on coherent and well-founded premises (Carroll, 1990).

According to W. Norman (2013), business ethics can be examined on several levels. At the micro level, it concerns the behavior of individuals. At the mid-level, it encompasses the conduct of politicians, governments and companies. Finally, at the macro-level, ethics addresses the organization of states and societies, as well as trade rules and business standards in general. All of these levels are important and they influence each other.

Methodology

The research method implemented herein is the case study. Although this method does not produce testable generalizations, it can bring illustrative conclusions about corporate behavior (Gustafsson, 2017). A case study allows researchers to analyze real-world business dilemmas and decisions as well as to assess business problems within the broader organizational, industry, and

societal context (Nohria, 2021). Particularly, the case study method allows for an extensive and detailed examination of one or a few selected instances of a phenomenon. This is especially valuable when a researcher aims to gain a deep, holistic understanding of the case (Coombs, 2022).

The goal of this case study analysis is to reveal the main determinants that encouraged Tho-Radia Cosmetics to change its unethical practices. To achieve this, the following steps were taken in the research part: analyses of radioactive cosmetics were conducted, with a particular focus on Tho-Radia; the history of the discovery of radioactive elements and the first reports on their harmful effects were examined; information contained in Tho-Radia brand promotions was analyzed; and finally, knowledge about radioactive substances was compared with the activities of Tho-Radia Company. A timeline and a comparative table of possibilities were created, taking into account the harmfulness of the cosmetics and the available knowledge about radioactive substances, and subsequently, the company's behavior was evaluated. The analysis is entirely based on historical data from the early 20th century (secondary data analysis).

Tho-Radia Cosmetics: Company Background

The subject of this analysis is the French company Tho-Radia Cosmetics, which operated in the early 20th century. This case is both remarkable and controversial within the cosmetics industry, yet it remains relatively little known. The company gained notoriety for promoting and selling beauty products containing radioactive substances, primarily radium and thorium. In 1934, a well-known poster, designed by advertising artist Tony Burnand was released (Raynal & Lefebvre, 2012b). The poster featured a young woman with platinum blonde hair, her face illuminated from below by an intense light emanating from a jar of cream. The ad contained the following content:

Original ad text:

Creme Poudre
Tho-Radia
Embellissantes parce que curatives
a base de thorium et de radium selon la formule du
Docteur Alfred Curie
Exclusivement chez les pharmaciens

Le Boite 12.50'
Brochure gratuite sur demande a Tho-Radia,
20 Rue des Capucines, Paris

[English Translation:]

Powder Cream
Tho-Radia
Beautifying because of their healing
properties
with thorium and radium from Doctor
Alfred Curie's formula
Exclusively in pharmacies

The 12.50' Box
Free brochure on request at Tho-Radia,
20 Rue des Capucines, Paris

The product was the “Tho-Radia cream with beautifying and curative virtues”, formulated with thorium and radium. It was developed by the Parisian pharmacist Alexis Moussalli, based on a formula by doctor Alfred Curie. Although Alfred Curie shared a surname with the Nobel Prize winners Pierre and Marie Curie, he had no familial connection to them; however, his name was strategically used to promote the cream (Tho-Radia Items).

Alfred Curie officially registered the Tho-Radia brand name on November 29, 1932, under the Swiss company Secor, which was based in Paris. In 1950, Tho-Radia was taken over by L’Oréal, which continued to produce cosmetics under this brand for approximately 10 years (Tho-Radia Items).

Case study analysis

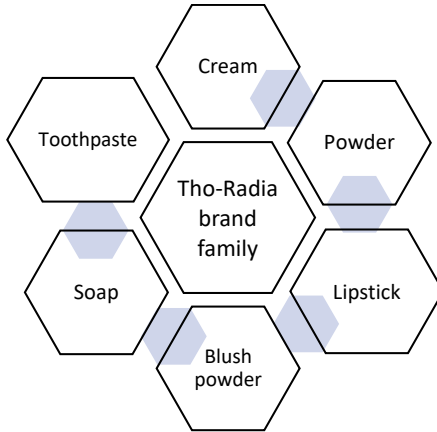
The case study will serve as a focal point for our investigation into the factors that motivate businesses, like Tho-Radia Cosmetics, to reassess their unethical practices and adopt a more responsible approach. By exploring the historical, ethical, and scientific aspects of this unique case, we aim to look for motives for ethical business conduct, but also to shed light on the evolving dynamics of ethics within the cosmetics industry. Additionally, this analysis seeks to highlight the critical lessons that can be drawn from this episode.

Tho-Radia was established in 1932 by pharmacist Alexis Moussalli with the aim of developing a range of cosmetics containing rare earth elements, such as thorium and radium (Lefebvre & Raynal, 2002). To bolster the company’s reputation, Moussalli recruited physician Alfred Curie as a prominent figurehead, leveraging the famous Curie surname associated with Pierre and Marie Curie. Although Alfred shared the Curie surname, he had no familial connection to the renowned scientists. The original Curies were not pleased with this association and considered taking legal action against Tho-Radia; however, the case did not advance to court (Tho-Radia Items). The true inventor of the Tho-Radia formula remains uncertain, whether it was Alfred Curie or pharmacist Alexis Moussalli. However, it is known that the Tho-Radia patent was registered by the Tribunal de Commerce de la Seine on November 29, 1932 (Mould, 2007).

The company’s flagship product was the Tho-Radia cream, which was advertised to improve blood circulation, firm tissues, reduce oiliness, and diminish wrinkles (Lefebvre & Raynal, 2002). Launched in 1932, the cream was marketed as a revolutionary breakthrough in facial beauty. Manufactured by Laboratoires Tho-Radia in Paris, the cream and other cosmetics of this brand boasted a unique cosmetic formula and tests for effectiveness. In that time, radioactive elements such as radium and thorium were still

largely perceived as beneficial to health. The product range offered under the Tho-Radia brand is presented in Figure 1 and Illustration 1.

Figure 1. Products manufactured by Tho-Radia Cosmetics



Source: own work.

Illustration 1. Advertisement of Tho-Radia Cosmetics



Source: The Radium Girls and the Generation that brushed its Teeth with Radioactive Toothpaste. 2020. Retrieved from: <https://www.messynessychic.com/2015/07/02/the-radium-girls-and-the-generation-that-brushed-its-teeth-with-radioactive-toothpaste/>

Creme Tho-Radia was marketed as a sophisticated and groundbreaking skincare solution with a multitude of skin benefits. The promotional campaigns highlighted its exceptional formulation, which was claimed to be based on the discovery of the rejuvenating properties of thorium and radium. Emphasis was also placed on the use of scientific methods. Advertising materials for Creme Tho-Radia consistently showcased images of elegant women with flawless skin, accompanied by endorsements from contented customers. The cream was positioned as a luxurious product designed to help women achieve a youthful and radiant complexion. Beyond traditional print advertisements, Creme Tho-Radia was also promoted through live product demonstrations and celebrity endorsements. Many actresses and socialites of the era praised the cream, providing enthusiastic testimonials that further fueled its popularity. Consequently, the promotion strategies for Creme Tho-Radia proved highly successful, solidifying the cream's status as one of the most sought-after skincare products of its era.

It is noteworthy that the company advertised two of its products – as containing radioactive substances: Tho-Radia Cream and Tho-Radia Powder. However, it remains uncertain whether the other products in the line contained any radioactive elements, and whether the content of radioactive substances was advertised. According to available information, the cream contained 0.233 ug of radium bromide and 0.5 g of thorium chloride, while the powder contained 0.01 ug of radium bromide, 0.1 g of thorium sulfate and 4 g of titanium oxide (Tho-Radia Items).

The Tho-Radia Company not only advertised intensively but also educated its customers. In 1935, the Tho-Radia laboratory published a “Medical and Practical Dictionary of Beauty Treatments” which devoted significant attention to Tho-Radia cream which

stimulates cellular vitality, activates circulation, firms tissues, eliminates fat, prevents the deformation of the pores, prevents and heals scars, pimples, redness, relaxes the skin against miasmas and bad weather, fights all the alterations of the epidermis, prevents and removes wrinkles, preserves the freshness and radiance of the complexion (Dictionnaire Médical..., 1935).

The last sentence stated that science created Tho-Radia to beautify women. It was up to them to take advantage of it. “Stay ugly if you want to!” (Raynal & Lefebvre, 2012a).

The situation underwent a complete transformation in 1937 when new regulations were introduced in France. The new law restricted the use of radium and thorium and mandated clearer labeling to indicate their

toxicity. From that point onward, manufacturers were required to mark their products with the word “poison” on an orange-red label. Additionally, starting in 1938, they had to comply with three requirements. First of all, manufacturers outside the pharmaceutical sector were obliged to cease marketing radioactive products altogether. Secondly, for pharmaceutical laboratories, radium-based products could only be sold with a medical prescription, leading to the discontinuation of beauty creams such as the Tho-Radia cream. Lastly, while the products could still be sold under the same brand name to maintain their established reputation, the radioactive elements had to be removed from their formulas. This was the case for products in the Tho-Radia range, which no longer contained thorium or radium from 1938 (Raynal & Lefebvre, 2012b).

With the outbreak of the Second World War, the popularity of the Tho-Radia brand began to wane gradually, especially as the memory of the Hiroshima tragedy was still fresh in people’s minds. The brand was eventually taken over by L’Oréal and remained on the market until the mid-1960s, when it was eventually abandoned due to distrust related to the image of radioactive products, changing consumer preferences and very tough competition within the industry (Raynal & Lefebvre, 2012b).

Discussion

In the early 20th century, the use of radioactive substances in various products was a common practice. Radium and thorium, for instance, were incorporated into facial creams to reduce wrinkles and into lipsticks to intensify lip color. Additionally, there were even household items, such as a fountain and a coffee pot containing radium, intended to provide radioactive water for drinking, which enjoyed considerable commercial success (Lefebvre & Raynal, 2002). This period saw a trend where companies, including those in the cosmetics industry, capitalized on the popularity of radioactive products to strengthen their market position.

The rationale behind using radioactive substances for health improvement is linked to the concept of hormesis, as explained by Calabrese and Baldwin (2002). Hormesis is a biological phenomenon where a low dose of a stressor, such as radiation, can have a beneficial effect on an organism, while a higher dose can be toxic. Consequently, radium was believed to offer health benefits in small amounts, leading to its incorporation in health and hygiene products. However, this trend also paved the way for potential unethical practices, such as the use of cheap and harmful ingredients for easy profit (Gould, 2017). The case of Tho-Radia Cosmetics is a pertinent example in this context. The company’s founders, doctors and

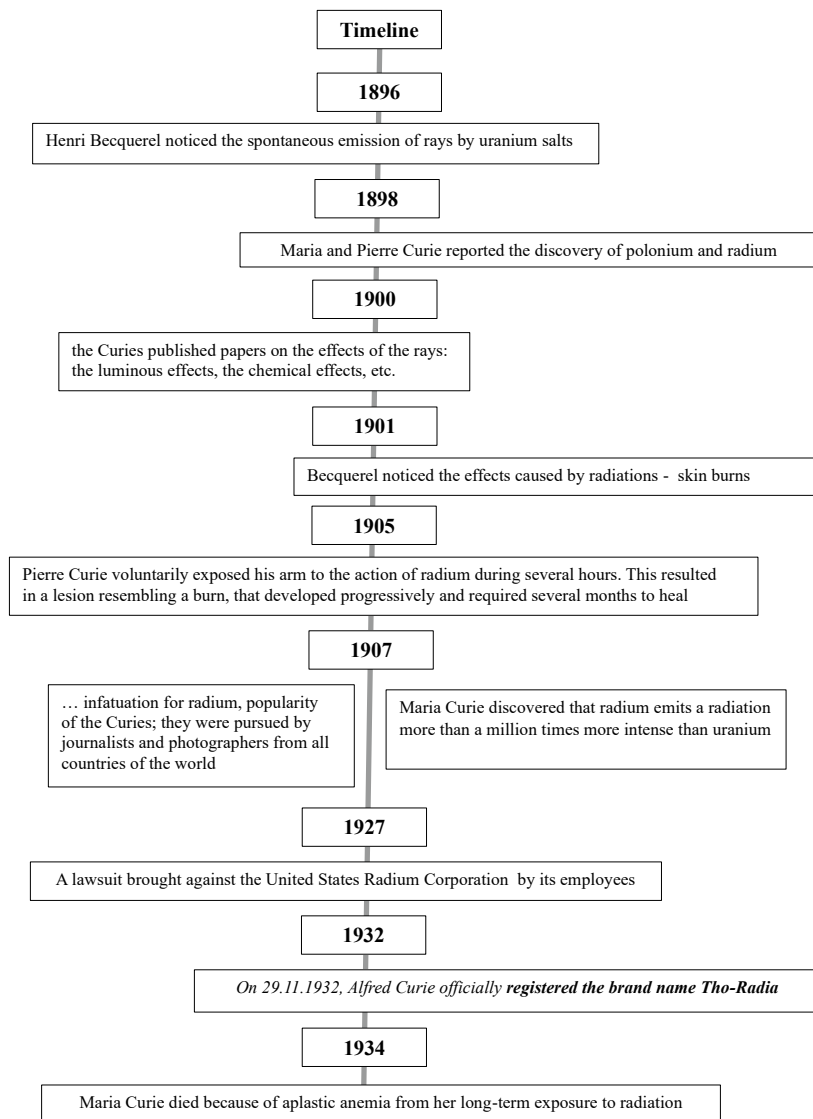
pharmacists like Moussalli and Curie, can be scrutinized through the lens of professionalism and responsibility. Their involvement in the cosmetics and medical fields, where human health and life are at stake, demanded a high standard of ethical conduct. However, at the time of Tho-Radia's establishment, there were already reported cases of severe illnesses, fatalities, and unethical business practices, with some entrepreneurs taken to court by injured employees (Moore, 2020). This situation highlights the importance of professional and ethical behavior in the cosmetology and medical industries. Despite the prevalent trend of using radioactive substances in products, the risks associated with such practices were becoming increasingly evident. Tho-Radia Cosmetics, being part of this industry, faced the dilemma of balancing market trends with ethical responsibilities.

Undoubtedly, business activities in the fields of cosmetology and medicine demand a high level of professionalism and responsibility, as they directly affect human health and life. The actions of Tho-Radia Cosmetics may be interpreted differently when we consider events before its founding – as presented by the timeline (Fig. 2).

While it is true that, at the time, the full extent of the dangers associated with radioactivity was not fully understood, it is evident that the company exploited the public's limited knowledge about these substances to market their products. This assertion is supported by the fact that the Tho-Radia brand owners were scientists and pharmacists, who were undoubtedly aware of the situation in the industry. They must have been informed about fatal cases caused by radiation exposure or about a lawsuit brought a few years earlier by employees in the USA. The latter case in particular was high profile as it involved female employees who suffered injuries from painting clock faces with radioactive paint.

It should be indicated that at least two highly publicized fatalities in France are particularly relevant in this context. The first was the case of Eben Byers, an American millionaire who invested in radioactive cosmetics and ultimately became their victim himself, dying from radiation poisoning in 1932 (Seaver, 2022). The second was the death of Marie Curie in 1934, who succumbed to aplastic anemia due to long-term exposure to radiation (Lemire, 2017). Given these events, it seems implausible that the company's owners were not aware of the incidents included in the Timeline and Table 1. This leads to the argument that their primary business objective may have been dishonest, aiming to capitalize on the popularity of radioactive substances despite the known risks (Raynal & Lefebvre, 2012a; 2012b). The factors relevant to the assessment of the company are listed in the Table 1.

Figure 2. Timeline describing the development of knowledge about radioactive substances



Source: own work based on: Moore, 2020, pp. 349–353; Curie, 1923.

Table 1. Information availability about radiation – a comparative table

Factor or information important for the health of workers and consumers		Possibility that the Tho-Radia owners knew about it
1	Exposure to radiation may bring health problems, such as burns, bone damage, leukemia, cancer or organ damage	Yes, because discoverers of radioactive elements reported possible health problems
2	Exposure to radioactive rays may result in death	Yes, because fatalities have already been reported in France as well
3	Employee health problems and fatalities resulted in a lawsuit against the United States Radium Corporation	Yes, because the lawsuit started 5 years before the company was founded
4	Publications provided by Marie and Pierre Curie on the effects of radiation	Yes, because the publications had been publicly available for 30 years

Source: own work based on the Timeline (Fig. 2).

Tho-Radia’s marketing strategies raised ethical concerns, particularly when evaluated against core principles of ethical business such as honesty, responsibility, fairness, respect, and transparency (Payne & Pressley, 2013). The company’s actions exemplified unethical conduct, including deceptive marketing practices, exploitation of public ignorance, and disregard for public safety. The literature highlights that advertising is an ethically charged area due to its inherently manipulative and persuasive nature (Shabbir et al., 2019). This is confirmed by the discussed case – Tho-Radia Cosmetics, in its advertisements, not only concealed the potential health risks of its products but also exaggerated their benefits with false efficacy claims. Additionally, the pseudo-scientific guide published by the company provided false information about the effects of using radioactive cosmetics.

While there is limited information regarding the safety measures implemented for Tho-Radia’s employees, it is also known that the health of workers in the industry was often compromised until the introduction of regulatory interventions (Moore, 2020). Honesty in business also involves adherence to laws and regulations. While Tho-Radia did not technically violate any existing laws when it introduced its products, the company certainly breached ethical standards by not providing honest information to consumers.

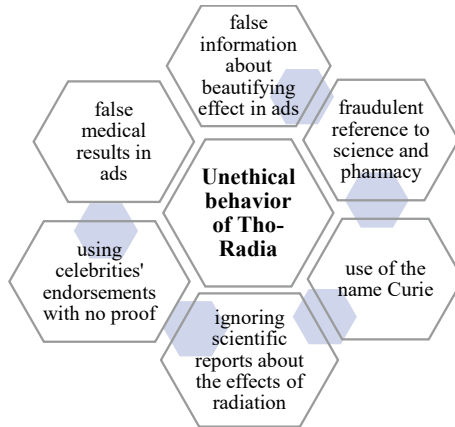
At the same time, radiological physicists and chemists were publicizing both the benefits and dangers of radiation, including at scientific congresses. Notably, the Fifth International Congress of Radiology, held in Chicago in 1937, played a crucial role in shaping new legal regulations (1937 Recommendations). On this wave, in 1937 a new law was also created in France. It restricted the use of radium and thorium and

mandated clear toxicity warnings, contributing to the decline in the popularity of radioactive cosmetics.

The allure of “radium” in the consumer market of the 1930s was so powerful that many products falsely claimed to contain it, associating it with value and prestige (Prisco, 2020). However, this phenomenon also highlighted the unethical practices rampant in the industry, posing serious health threats to consumers. Tho-Radia Cosmetics, despite being aware of the harmful effects of radiation, continued to aggressively market its products through advertisements, celebrity endorsements, pseudo-scientific publications and product demonstrations in pharmacies.

In summary, Tho-Radia Cosmetics’ unethical activities included misleading advertising, dissemination of false medical information, deliberate references to medicine and pharmacy, use of celebrity endorsements to legitimize cosmetic effects, misuse of the Curie name, and disregard of scientific information regarding the effects of radioactivity (Fig. 3). Especially unauthorized use of the image of scientists – in this case the Curies – who belong to a valued and socially respected profession, contributed to the brand’s success (Dziedzic & Sułkowski, 2023). These actions illustrate a clear departure from ethical business practices, placing commercial success above honesty, public health, and safety.

Figure 3. Unethical Tho-Radia Company activities



Source: own work.

Rebuilding trust after ethical violations is a difficult task without implementing appropriate corrective actions. This was evident in the case of Tho-Radia. The company’s failure to provide explanations or take remedial measures was a major reason for the gradual decline in its brand

popularity, leading to its eventual withdrawal from the market, even after its products no longer contained radioactive substances. Additionally, the health risks associated with radiation and the tragic aftermath of the atomic bombings in Hiroshima and Nagasaki during World War II further contributed to its demise.

Limitations of the Study and Recommendations for Future Research

The study of Tho-Radia Cosmetics is subject to several limitations, primarily due to the historical context. One challenge is the limited availability of historical data and documents, such as specific market or sales figures for Tho-Radia. Consequently, the information provided in this case study, based on existing historical records, may not fully reflect the company's operations and decision-making processes. That is why it is crucial to contextualize the Tho-Radia Company's actions within its historical context, acknowledging that ethical standards have evolved over time.

Further research could explore the role of the scientific community in endorsing or challenging the claims made by companies like Tho-Radia. This could include examining how scientific validations were either genuinely sought or fabricated, as well as the impact of such practices on public perception and trust in science. Research could also explore modern parallels to the Tho-Radia case, examining contemporary companies that may be exploiting gaps in regulatory frameworks or scientific understanding to market potentially harmful products. This line of inquiry would be valuable for understanding how lessons from the past are being applied or overlooked in today's market practices.

Conclusions

This article examined the early 20th-century French company Tho-Radia Cosmetics, known for producing cosmetics containing radium and thorium. It explored the company's policy changes and its awareness of the dangers of radioactive products. The main conclusions from the analysis are as follows:

1. Tho-Radia Cosmetics failed to provide accurate and transparent information about its products and disregarded public safety concerns. Consequently, it can be concluded that the company violated ethical business principles, including honesty, responsibility, and respect for public safety.

2. The company's unethical conduct was also evident in its deceptive marketing strategies. Tho-Radia promoted its products as revolutionary skincare solutions and made misleading claims about their rejuvenating properties. These tactics took advantage of public ignorance about the potential health risks associated with radiation exposure.
3. There is no reason to believe that the owners of the Tho-Radia were unaware of the health risks associated with radiation exposure, yet they continued to sell these products.
4. The company attempted to mislead customers by associating itself with the renowned Curie name, despite no familial connection, as well as by justifying promotion by falsely claiming connections to medical knowledge.

In conclusion, it can be argued that Tho-Radia Cosmetics engaged in unethical practices by unlawfully profiting from consumers' ignorance. The decision to stop using radioactive ingredients was a consequence of legal changes in France, rather than a voluntary act of responsibility. From today's perspective, such conduct by a business can be deemed highly unethical and even outrageous. Furthermore, despite the absence of legal standards in the early 20th century, there was already sufficient evidence of the harmful effects of radioactive substances. The company could have adjusted its strategy to prioritize the health and life of its consumers. This case shows the critical role of legal standards, the influence of the scientific community's opinion, and the importance of the external pressure on companies to adhere to ethical principles.

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REFERENCES

- Amine, L.S. (1996). The need for moral champions in global marketing. *European Journal of Marketing*, Vol. 30(5), 81–94. DOI: 10.1108/03090569610118795.
- Ashman, I. & Winstanley, D. (2006). Business ethics and existentialism. *Business Ethics: A European Review* 15(3), 218–233. DOI: 10.1111/j.1467-8608.2006.00445.x.
- Bartels, R. (1967). A Model for Ethics in Marketing. *Journal of Marketing*, 31(1), 20–26. DOI: 10.1177/002224296703100105.

- Calabrese, E.J. & Baldwin, L.A. (2002). Defining hormesis. *Human & Experimental Toxicology* 21, 91–97. DOI: 10.1191/0960327102ht217oa.
- Carrigan, M., Marinova, S., & Szmigin, I. (2005). Ethics and international marketing: Research background and challenges. *International Marketing Review*, Vol. 22(5), 481–493. DOI: 10.1108/02651330510624345.
- Carroll, A.B. (1990). Principles of Business Ethics: Their Role in Decision Making and an Initial Consensus. *Management Decision*, Vol. 28(8). DOI: 10.1108/00251749010006032.
- Coelho, S.P., Rita, P., & Ramos, R.F. (2023). How the response to service incidents change customer–firm relationships. *European Journal of Management and Business Economics*, Vol. 32(2), 168–184. DOI: 10.1108/EJMBE-05-2021-0157.
- Coombs, H. (2022). Case study research: single or multiple [White paper]. *Southern Utah University*. DOI: 10.5281/zenodo.7604301.
- Cosmetics market in Europe – statistics & facts. (2023). *Statista*. Retrieved from: <https://www.statista.com/topics/7382/cosmetics-market-in-europe/#topicOverview>.
- Curie, M. (1923). *Pierre Curie*. New York: The Macmillian Company. Retrieved from: <https://www.gutenberg.org/files/69617/69617-h/69617-h.htm>.
- Czakon, W., Jedynek P., & Konopka-Cupiał, G. (2022). Trust- and distrust-building mechanisms in academic spin-off relationships with a parent university. *Studies in Higher Education*, Vol. 47(10), 2056–2070. DOI: 10.1080/03075079.2022.2122659.
- Dictionnaire Médical et Pratique des Soins de Beauté*. (1935). Paris: Tho-Radia.
- Dyduch, W., Dominiczewska M., & Kubiczek, J. (2023). Value Creation Value Capture Revisited: Resource, Entrepreneurial and Relational Orientations. *Forum Scientiae Oeconomia* Vol. 11(4), 63–81. DOI: 10.23762/FSO_VOL11_NO4_3
- Dziedzic, J. & Sułkowski, Ł. (2023). The Role of the Scientist’s Personal Brand in the Reflexive Construction of Organizational Identity. *Discourses on Culture* 20(1), 99–228. DOI: 10.2478/doc-2023-0016.
- Eagle, L., Dahl, S. & Low, D.R. (2014). *Ethical Issues in the Marketing of Skin Lightening Products*. ANZMAC 2014 Proceedings, 75–81.
- Gould, P.M. (2017). *Making a Difference: the Impact of Corporate Ethical Behavior on Consumers in the Beauty Industry*. Honors Theses and Capstones. 356. Retrieved from: <https://scholars.unh.edu/honors/356>.
- Gustafsson, J. (2017). *Single case studies vs. multiple case studies: A comparative study*. Retrieved from: diva-portal.org.
- Hatami, A., Hermes, J., & Firoozi, N. (2023). Moral laxity – the cognitive gap between true and pseudo corporate social responsibility. *Critical Perspectives on International Business*, Vol. 19(4), 526–549. DOI: 10.1108/cpoib-03-2021-0029.

- Hofstede, G. (2001). *Culture's consequences: Comparing values, behaviors, institutions, and organizations across nations*. New York: McGraw-Hill.
- Hosmer, L.T. (2003). *The Ethics of Management*. New York: McGraw-Hill.
- Husted, B.W. & Allen, D.B. (2008). Toward a model of cross-cultural business ethics: The impact of individualism and collectivism on the ethical decision-making process. *Journal of Business Ethics*, 82(2), 293–305. DOI: 10.1007/s10551-008-9888-8.
- Kolmar, Ch. (2023). *25 powerful cosmetics industry statistics [2023]: what's trending in the beauty business?* Retrieved from: <https://www.zippia.com/advice/cosmetics-industry-statistics/>.
- Laczniak, G.R. & Murphy, P.E. (1992). *Ethical Marketing Decisions: The Higher Road*. Upper Saddle River: Pearson.
- Lefebvre, Th. & Raynal, C. (2002). De l'Institut Pasteur à Radio Luxembourg. L'histoire étonnante du Tho-Radia. *Revue d'Histoire de la Pharmacie*, 335, 461–480.
- Lemire, L. (2017). *Maria Skłodowska-Curie*. Warszawa: Świat Książki, 136.
- Leonidou L.C., Katsikeas, C.S., Samiee, S., & Aykol B. (2018). *Advances in Global Marketing*. Springer Cham. DOI: 10.1007/978-3-319-61385-7.
- Moore, K. (2020). *The Radium Girls. The Dark Story of America's Shining Women*. Sourcebooks. Naperville: Sourcebooks.
- Mould R.F. (2007). Pierre Curie, 1859–1906. *Current Oncology*, vol. 14(2), 74–82. DOI: 10.3747/co.2007.110.
- Nohria, N. (2021). What the Case Study Method Really Teaches. *Harvard Business Review*, December. Retrieved from: <https://hbr.org/2021/12/what-the-case-study-method-really-teaches>.
- Norman, W. (2013). Business Ethics. In: *The International Encyclopedia of Ethics*. Blackwell Publishing. DOI: 10.1002/9781444367072.wbicc719.
- Oswald, A.J. & Mascarenhas, S.J. (2019). *The Ethics of Corporate Trusting Relations, Corporate Ethics for Turbulent Markets*. Bingley: Emerald Publishing Limited, 77–111. DOI: 10.1108/978-1-78756-191-520191004.
- Payne, D. & Pressley, M. (2013). A transcendent code of ethics for marketing professionals. *International Journal of Law and Management*, Vol. 55(1), 55–73. DOI: 10.1108/17542431311303822.
- Prisco, J. (2020). When beauty products were radioactive. *CNN Style*. Retrieved from: <https://edition.cnn.com/style/article/when-beauty-products-were-radioactive/index.html>.
- Raport Banku PKO BP. (2023). Branża kosmetyczna. Pozycja międzynarodowa polskich producentów i prognozy rozwoju rynku do 2026 r. *Departament Analiz Ekonomicznych*. Retrieved from: https://www.pkobp.pl/media_files/183c4290-b6a4-4e85-9913-b3717e234cb1.pdf.
- Raynal, C. & Lefebvre, Th. (2012a). Du radium dans les pharmacies! Première partie: les usages pharmaceutiques du radium avant la Première Guerre mondiale. *Revue d'histoire de la pharmacie*, Vol. 59(372), 431–446.

- Raynal, C. & Lefebvre, Th. (2012b). Du radium dans les pharmacies! Seconde partie: les usages pharmaceutiques du radium entre les deux guerres. *Revue d'histoire de la pharmacie*, Vol. 59(373), 73–86.
- Rousselet, E., Brial, B., Cadario, R., & Béji-Bécheur, A. (2020). Moral Intensity, Issue Characteristics, and Ethical Issue Recognition in Sales Situations. *Journal of Business Ethics*, 163(2), 347–363, Retrieved from: <http://www.jstor.org/stable/45283702>.
- Roy A., Newman, A., Round, H. i Bhattacharya, S. (2024). A Review and Agenda for Future Research. *Business Ethics Quarterly*, 34(1), 97–138. DOI: 10.1017/beq.2022.44.
- Sauser, W.I. (2005). Ethics in Business: Answering the Call. *Journal of Business Ethics*, 58, 345–357. DOI: 10.1007/s10551-004-5715-z.
- Seaver, C. (2022). *The Strange Story of Eben Byers, Who Drank Radium Until His Jaw Fell Off*. Retrieved from: <https://www.historydefined.net/eben-byers/>.
- Shabbir, H.A., Maalouf, H., & Griessmair, M. et al. (2019). Exploring Perceptions of Advertising Ethics: An Informant-Derived Approach. *Journal of Business Ethics*, 159, 727–744. DOI: 10.1007/s10551-018-3784-7.
- Smith, N.C. & Quelch, J.A. (1992). *Ethics in Marketing*. Homewood, IL: Irwin.
- Tho-Radia Items. Museum of Radiation and Radioactivity. Retrieved from: <https://orau.org/health-physics-museum/collection/radioactive-quack-cures/pills-potions-and-other-miscellany/tho-radia-items.html>.
- 1937 Recommendations. International Recommendations for X-ray and Radium Protection. Retrieved from: <https://www.icrp.org/publication.asp?id=1937+Recommendations>.

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