



To what extent do Intellectual property rights (IPR) encourage innovation through design thinking?

Nandini Jain

Student

The Shriram Millennium School

Abstract

Innovation is essential for businesses that wish to stay relevant and survive in the highly competitive global economy. While traditional approaches to innovation have often not been centred around the consumer and their wants and needs, design thinking presents a more user-centred approach, offering several benefits to companies, including the potential to earn higher revenues and profits as well as garner stronger customer loyalty. However, design thinking is an expensive and lengthy approach to implement, which can be discouraging to innovators, especially with the added risk of innovations being copied or stolen once they hit the market. As a result, intellectual property rights (IPR), such as patents, copyrights, trademarks, design rights, and trade secrets, provide essential frameworks and legal protection, encouraging innovators to pursue design thinking. This research paper analyzes the importance of IPR in supporting design thinking as an approach to innovation and uses Starbucks as a real-life case study to exemplify these concepts.

Key Words: Design Thinking, Intellectual Property Rights (IPR), Innovation, Starbucks

Introduction

In today's competitive market, innovation is not just a strategy for growth but it is a necessity for survival. Innovation involves the creation and implementation of new ideas, products and services to improve how organizations operate and serve their customers (McKinsey & Company, 2022). Innovation aims to enhance consumer satisfaction, product efficiency and market expansion. Another part of innovation is business innovation where the main goal is to boost revenue and to create positive change in businesses (Cassidy, 2018). However, for innovation to do what it is supposed to do, it requires a method that considers consumer needs, which is where design thinking comes into play. Design thinking, which is the human-centred approach to solving problems, combines empathy, creative brainstorming and prototyping intending to make

something innovative yet user-friendly (McKinsey & Company, 2022). Design thinking allows businesses to stand out, particularly in the retail sector where customer experience is paramount.

While innovation and design thinking are crucial for success, protecting ideas and designs to make sure no one else can use them is equally important. Intellectual Property Rights (IPR) provide the legal framework to safeguard creations of the mind, ensuring that inventors and businesses can benefit from their innovation without the threat of it being stolen or used without their permission (WIPO, 2016). Intellectual property rights can include patents, trademarks, copyrights and trade secrets each covering different types of innovations and designs - all of which will be explored further in this research paper. In line with the aforementioned, this research paper aims to answer the following question: **“To what extent do Intellectual property rights (IPR) encourage innovation through design thinking?”**

This research paper aims to analyse design thinking as an approach to innovation and then further evaluate the importance of IPR in enabling this. To show how this works and to get a deeper understanding, a case study of Starbucks will be considered.

An Exploration of Design Thinking

A human-centred approach to complex issues is what design thinking is all about. The beginnings of design thinking can be found in the 1960s and 1970s when designers began to explain their approaches to solving problems. Key figures like Herbert A. Simon, who wrote "The Sciences of the Artificial" (1969), and the work of the Design Methods Movement contributed significantly to laying the foundation for what would later be known as design thinking. Design thinking was then formalised and championed as a user-centred approach to innovation by the design and innovation consultancy IDEO, founded by David Kelley, in the early 1990s (IDEO, 2017). Design thinking is also influenced by the Hasso-Plattner Institute of Design at Stanford. The institute formalized the process by integrating it into educational curriculums and promoting its use beyond traditional design fields.

Design thinking was applied within the realm of product design to create more user-friendly and effective products. Since its principles proved successful, the approach expanded into various industries, including healthcare, education, and business strategy (McKinsey & Company, 2023). Organizations realized that design thinking's compassionate and iterative approach could be used to tackle a wide range of challenging issues, ranging from enhancing client encounters to addressing social issues (Liedtka, 2018). In being adopted as an approach to innovation, design thinking distinguishes itself from other innovation approaches that emphasize cutting-edge innovations as it ensures that the final product is not only innovative but also genuinely valuable to the user (McKinsey & Company, 2023). Furthermore, addressing real-world

problems from the users' perspective can help design thinking to uncover insights and opportunities that might be overlooked by other methods (IDEO, 2017).

There are five stages to the design thinking process: empathy, define, ideate, prototype, and test (Gupta, 2023). Each stage plays a crucial role in developing solutions that are both user-centred and innovative. A deep understanding of users and their needs is the first stage called *empathy*. This is accomplished through observation, interviews, and engagement with the users in their environment (IDEO, 2017). The entire design process can be informed by empathizing with users. This allows designers to set aside their own assumptions about the world and gain insight

into the users and their needs as well as their experiences and motivations (Han, 2022). In the second phase, it is all about *defining the problem*. The designers will analyze the data collected in the first phase to identify and phrase the issue and create a clear and concise problem statement (McKinsey & Company, 2023). A problem statement is very important because it highlights the issues the target audience faces and the solutions which can be implemented - ensuring that a human-centred approach is used. During the *ideation* stage, designers come up with a wide range of ideas to solve the defined problem. This is a phase where creativity is encouraged and no idea is considered too far-fetched (Dam, 2022). The goal is to explore as many solutions as possible, creating an open and collaborative environment (Linke, 2017). The best ideas from the ideate stage are then transformed into tangible *prototypes*. These representations can be simple, low-fidelity models or more complex representations, depending on the context, they don't need to be finished prototypes. Designers can explore the feasibility of their ideas and identify potential issues early in the process of prototyping. The final stage involves *testing* the prototypes with real users in order to gather feedback and insights. User responses help refine and improve solutions (Han, 2022). Testing ensures that the final product is not only functional but also resonates with users and meets their needs effectively.

The advantages of adopting design thinking as an approach to innovation are evident in the numbers. For instance, data from McKinsey shows how organizations that regularly follow design thinking practices see a third higher revenues and 56 percent higher returns than those that don't (Sheppard et al., 2018). Furthermore, half of the design-led companies surveyed by Adobe say design thinking results in more satisfied and loyal customers and 41 percent report greater market share as an advantage of having (Forrester, 2016). That being said, design thinking does take a substantial investment of capital resources and can be time-intensive. Therefore, in order to safeguard innovations that come from design thinking, the intersection with intellectual property rights, which encompass patents for new inventions, trademarks for brand names and logos, copyrights for original creative works, and trade secrets for confidential business information (Kenton, 2023), is essential to understand and use effectively.

An Introduction to IPR

Intellectual Property Rights (IPR) are legal rights designed to protect the creations and innovations of individuals and businesses and play a crucial role in safeguarding the intellectual efforts and investments made by creators, inventors, and enterprises (Bhattacharya and Saha, 2011). IPR encompasses various types of protections, including patents, trademarks, copyrights, design rights, and trade secrets with each form of IPR serving to ensure that the original creator or inventor can control and benefit financially from their work. This encourages innovation and creativity, fostering an environment where new ideas can flourish without the fear of unauthorized use of their work.

Patents protect new inventions and processes, giving the inventor the exclusive right to use, sell, and license their invention for a certain period of time. To obtain a patent, an invention must be new, non-obvious, and useful and technical information about the product should be disclosed to the public in a patent application. Patents work for 20 years after the filing date (WIPO, 2016). Industries such as pharmaceuticals and technology heavily depend on patents to safeguard their innovations and maintain a competitive advantage. For instance, pharmaceutical companies patent new drugs to prevent unauthorized production, usage, or sales. Similarly, in the tech industry, companies like Apple and Samsung frequently patent new technologies to uphold their market position and profitability.

Trademarks encompass brand names, logos, slogans, and other symbols that differentiate one company's goods and services from those of others (Hennigan, 2021). The process of trademark registration involves submitting an application to the relevant government office and paying the registration fee, demonstrating that the mark is unique and used in commerce (WIPO, 2016). Trademarks play a vital role in establishing brand identity and consumer loyalty by enabling consumers to identify and trust a brand's products. Well-known trademarks include; the Nike swoosh which is not only a symbol, but also an embodiment of athletic excellence and the Apple logo which represents cutting-edge technology. The distinctive nature of these logos fosters customer loyalty by consistently fulfilling their brand promise (WIPO, 2016).

Copyrights protect creative works such as literature, music, and software, giving exclusive rights to the creators (Rettingberg and Main, 2023). They are essential for artists, authors, and developers, preventing unauthorized use and ensuring creators can earn from their work. To qualify for copyright, a work must be original and fixed in a tangible medium of expression (Rettingberg and Main, 2023). Copyright encompasses two types of rights: economic rights and moral rights. Economic rights allow the rights owner to derive financial reward from the use of their works by others. Moral rights protect the non-economic interests of the author, ensuring they receive proper attribution and their work is not distorted or mutilated (WIPO, 2016).

Design rights protect the visual aspects of products, including shapes, patterns, and colours. To obtain design rights, the design must be new and distinctive. These rights typically last for up to

25 years, after that, you have to pay a renewal fee (Hack, 2017). Industrial designs need registration for protection through design rights, but some countries allow unregistered protection, or protect them under patent or copyright law (WIPO, 2016). Design rights are important for industries such as fashion and automotive, where the appearance of a product can greatly impact its market appeal.

Trade secrets consist of confidential business information that provides a competitive edge, such as formulas, practices, designs, or processes which may be sold or licensed. To protect trade secrets, businesses must take reasonable steps to keep the information confidential, such as using non-disclosure agreements and security measures. Trade secrets remain protected as long as they are kept confidential and provide economic value and not many people know the trade secrets (WIPO, 2016). A famous example is the recipe for Coca-Cola, which has been closely guarded for over a century. This secrecy gives the company a significant competitive advantage, as no other beverage can exactly replicate its taste.

IPR is crucial for businesses as it promotes innovation through the protection of inventions and creative works. It grants a competitive advantage by ensuring exclusivity in the market, preventing unauthorized use by competitors. Additionally, IPR can generate revenue through licensing and royalties. By protecting brand elements, IPR ensures that a brand's identity remains unique, recognizable, and valuable. Furthermore, strong IPR protection can attract investment, as it showcases innovation potential.

Starbucks - A Case Study of Design Thinking and IPR in Action

Starbucks, established in 1971 in Seattle, Washington, has become a major player in the global coffee industry, with over 30,000 stores in more than 80 countries (Bondarenko and Petruzzello, 2024). The company transformed the coffeehouse experience by introducing high-quality coffee beans and a wide range of beverages to meet changing consumer preferences. Starbucks is famous for its consistent innovation, from popularizing iconic drinks like the Pumpkin Spice Latte to pioneering new brewing techniques such as Nitro Cold Brew. These innovations not only attract and retain customers but also set industry trends. Starbucks' global presence is strengthened by its dedication to sustainability, ethical sourcing, and community engagement, solidifying its reputation as a responsible corporate citizen (Allianz SE, 2014).

Starbucks utilizes design thinking to drive innovation in product development, as demonstrated by the success of signature items like the Pumpkin Spice Latte and Nitro Cold Brew. Not only are these offerings culinary breakthroughs but they are also safeguarded by strategic patents. By patenting unique recipes and preparation methods, Starbucks ensures that competitors are unable to replicate these popular beverages (Toesland, 2023). One notable area of patent coverage for Starbucks includes technologies such as customized drink machines, which play a vital role in delivering consistent and personalized beverage experiences on a global scale (Dean, 2023). Through the acquisition of these patents, Starbucks not only safeguards its investment in innovation but also reinforces its position as a leader in the competitive coffee

industry.



Starbucks uses design thinking to create unique store environments that enhance customer experience and reinforce brand identity. Flagship initiatives like Starbucks Reserve Roasteries and LEED-Certified Stores exemplify this approach. These locations are meticulously designed to offer immersive coffee experiences while integrating sustainable practices. For instance, Starbucks Reserve Roasteries, pictured to the left, feature open-layout roasting stations where customers can observe the coffee roasting process, enhancing transparency and customer engagement (Geraghty, 2019). Once again, IPR, in the form of design rights, plays a critical role in protecting Starbucks' store layouts, interior designs, and proprietary coffee brewing techniques. By securing these rights, Starbucks ensures consistency in brand presentation and customer experience globally. Each store's layout is crafted to optimize customer flow and enhance the overall ambience, reinforcing Starbucks' image as a premium coffee retailer dedicated to innovation and sustainability (Palaniappan, 2024).

Starbucks maintains and evolves its brand identity through meticulous application of design thinking. The evolution of Starbucks' iconic green siren logo, introduced in 1971, is one of the biggest examples of a brand adapting a vital part of its brand identity in accordance with the evolving and modernizing consumer preferences while preserving global recognition. The evolution of the logo can be seen in the image below wherein in 1971, the brand started with a logo featuring a twin-tailed mermaid or siren from Greek mythology, inspired by a 16th-century Norse woodcut, intending to symbolize the seductive allure of coffee. In 1987, when Howard Schultz purchased the company underwent a rebranding. Whilst the logo still remained consistent in showcasing the siren, it was redesigned to be more modern and less risqué. This was also the year in which the colour scheme of the logo was updated to green and white. From a design standpoint, the aforementioned was a well-thought-out choice as green, the background colour, commonly symbolises wealth, healing, and nature while white, used as the main siren symbol, represents simplicity and cleanliness (Kyamko, 2022). It can be assumed that these colour choices were made by the brand taking into consideration the image and identity it wanted to create and also perhaps what the consumers expected of them i.e. a brand that is perceived positively by doing good by its customers and partners.



That being said, trademark protection is integral to safeguarding Starbucks' brand elements, including logos as well as product names like 'Frappuccino,' and unique beverage offerings such as 'Starbucks Reserve.' These trademarks not only distinguish Starbucks in the competitive market but also prevent unauthorized use, preserving brand integrity and consumer trust worldwide (Milstead, 2023). Examples of these trademarks in action are evident in Starbucks' global presence. The green siren logo and trademarked product names reinforce Starbucks' identity as a purveyor of premium coffee experiences. They assure customers of consistent quality and authenticity, regardless of location, enhancing brand recognition and customer loyalty (Carson, 2023).

Overall, IPR plays a crucial role in facilitating and safeguarding Starbucks' ongoing innovation efforts, which are essential for ensuring growth and leadership in the coffee industry - through patents, trademarks and design rights among others, Starbucks protects its innovative products, distinctive store designs, and iconic brand elements. IPR safeguards Starbucks by preventing competitors from replicating its unique products, such as the Pumpkin Spice Latte or the design of Starbucks Reserve Roasteries. This protection not only preserves Starbucks' market differentiation but also incentivizes continued investment in research and development. Moreover, trademarks like the green siren logo and product names such as 'Frappuccino' enhance brand recognition and consumer trust globally (Gerben IP, 2024). By maintaining a robust IPR strategy, Starbucks fosters an environment that encourages innovation. This approach also encourages future creativity and experimentation in product development, store design, and sustainability initiatives.

Conclusion

Innovation is crucial for the survival of companies in the highly competitive global economy. However, many traditional approaches to innovation have failed to explicitly consider the requirements of the consumers. Furthermore, innovation is incredibly resource-intensive in terms of capital and time. Therefore, for businesses to be encouraged to innovate, that too with the consumer in mind, the final innovation must be safeguarded through IPR. This research paper aimed to analyse design thinking as an approach to innovation and further explore how IPR can facilitate such innovations - exemplified by the case study of Starbucks.

Design thinking is known for its human-centred problem-solving approach, which incorporates empathy, creativity, and iterative prototyping to create solutions that effectively meet user needs. This approach not only drives innovation but also ensures that resulting products or services are innovative and user-friendly. By serving as a crucial framework for protecting these innovations and safeguarding the hard work and dedication that creators put into their innovations, IPR encourages innovation through design thinking to a great extent. Patents safeguard novel inventions, trademarks protect brand identities, copyrights ensure the exclusivity of creative works, and trade secrets secure confidential business information. IPR also supports sustainable growth and strengthens competitive advantages in the marketplace. This connection between legal protection and innovative efforts not only promotes economic progress but also fosters an environment where new ideas thrive, benefiting both creators and consumers.

The case study of Starbucks serves as a poignant example of how design thinking, bolstered by robust IPR strategies, propels continuous innovation. Starbucks uses patents for beverage recipes, trademarks for brand elements, and copyrights for creative materials to maintain its competitive edge and sustain brand loyalty globally. By protecting their innovations, Starbucks not only safeguards their market position but also fosters an environment that encourages ongoing creativity and consumer trust.

Looking ahead, the combination of design thinking and IPR presents opportunities for further exploration and improvement. Future research could dive into optimizing IPR frameworks to better support emerging technologies and global innovation ecosystems. Strengthening these frameworks will enable policymakers and businesses to cultivate environments where creativity thrives, benefiting both consumers and industries alike.

Bibliography

Allianz SE (2014). *Allianz / How Starbucks Keeps Innovating*. [online] Allianz.com. Available at: https://www.allianz.com/en/press/news/company/point_of_view/140916-how-starbucks-keeps-innovating.html.

Baytaş, M.A. (2021). *The Story of Design Thinking*. [online] www.designdisciplin.com. Available at: <https://www.designdisciplin.com/p/the-story-of-design-thinking> [Accessed 14 Jul.2024].

Bhattacharya, S. and Saha, C.N. (2011). Intellectual property rights: An overview and implications in pharmaceutical industry. *Journal of Advanced Pharmaceutical Technology & Research*, 2(2), p.88.

Bondarenko, P. and Petruzzello, M. (2024). *Starbucks*. [online] www.britannica.com. Available at: <https://www.britannica.com/money/Starbucks>.

- Carson, M. (2023). *What Is Starbucks' Brand Personality?* [online] [www.linkedin.com](https://www.linkedin.com/pulse/what-starbucks-brand-personality-mitch-carson/). Available at: <https://www.linkedin.com/pulse/what-starbucks-brand-personality-mitch-carson/>.
- Cassidy, F. (2018). *Business Innovation: what is it and what could it do for you?* [online] Raconteur. Available at: <https://www.raconteur.net/growth-strategies/business-innovation-guide>.
- Dam, R.F. (2022). *The 5 Stages in the Design Thinking Process*. [online] The Interaction Design Foundation. Available at: https://www.interaction-design.org/literature/article/5-stages-in-the-design-thinking-process#stage_1:_empathize.
- Dean, G. (2023). *Starbucks filed a fresh patent for a machine which could create the highly personalized, super complex drinks staff are so sick of making for customers*. [online] BusinessInsider. Available at: <https://www.businessinsider.in/retail/news/starbucks-filed-a-fresh-patent-for-a-machine-which-could-create-the-highly-personalized-super-complex-drinks-staff-are-so-sick-of-making-for-customers/articleshow/98097749.cms>.
- Forrester (2016). *Design-led firms win the business advantage*. [online] Adobe.com. Available at: <https://landing.adobe.com/en/na/products/marketing-cloud/350450-forrester-design-led-business.html>.
- Geraghty, R. (2019). *How Starbucks Nailed Product Marketing with the 'Reserve Roastery'*. [online] Medium. Available at: <https://medium.com/we-are-product-marketing/how-starbucks-nailed-product-marketing-with-the-reserve-roastery-d16d2db6b5d4>.
- Gerben IP (2020). *Starbucks Trademarks - Gerben IP*. [online] www.gerbenlaw.com. Available at: <https://www.gerbenlaw.com/trademarks/restaurants/starbucks/>.
- Gupta, S. (2023). *What Are the 5 Stages of Design Thinking?* [online] Springboard Blog. Available at: <https://www.springboard.com/blog/design/design-thinking-process/>.
- Hack, G. (2017). *Design Rights*. [online] Practical Law. Available at: [https://uk.practicallaw.thomsonreuters.com/w-004-8494?originationContext=document&transitionType=DocumentItem&contextData=\(sc.Default\)&ppcid=50f5802c0bb34bde97ff13c0f4c390e1&comp=pluk](https://uk.practicallaw.thomsonreuters.com/w-004-8494?originationContext=document&transitionType=DocumentItem&contextData=(sc.Default)&ppcid=50f5802c0bb34bde97ff13c0f4c390e1&comp=pluk) [Accessed 14 Jul. 2024].
- Han, E. (2022). *What Is Design Thinking & Why Is It Important?* | HBS Online. [online] Business Insights Blog. Available at: <https://online.hbs.edu/blog/post/what-is-design-thinking>.

Hennigan, L. (2021). *Trademarks: Everything You Need to Know about Keeping Your Intellectual Property Safe*. [online] Forbes Advisor. Available at: <https://www.forbes.com/advisor/business/what-is-a-trademark/>.

IDEO (2017). *What is Design Thinking?* [online] IDEO U. Available at: <https://www.ideo.com/blogs/inspiration/what-is-design-thinking>.

Kenton, W. (2023). *What Is Intellectual Property, and What Are Some Types?* [online] Investopedia. Available at: <https://www.investopedia.com/terms/i/intellectualproperty.asp>.

Kyamko, M. (2022). *Starbucks Logo: History, Meaning, Evolution, Hidden Details, and Visual Identity*. [online] crowdspring Blog. Available at: <https://www.crowdspring.com/blog/starbucks-logo/#:~:text=Green%20is%20the%20background%20color>.

Liedtka, J. (2018). *Why Design Thinking Works*. [online] Harvard Business Review. Available at: <https://hbr.org/2018/09/why-design-thinking-works>.

Linke, R. (2017). *Design thinking, explained | MIT Sloan*. [online] MIT Sloan. Available at: <https://mitsloan.mit.edu/ideas-made-to-matter/design-thinking-explained>.

McKinsey & Company (2022). *What Is innovation?* [online] www.mckinsey.com. Available at: https://www.mckinsey.com/featured-insights/mckinsey-explainers/what-is-innovation#.

McKinsey & Company (2023). *What is design thinking? | McKinsey*. [online] www.mckinsey.com. Available at: <https://www.mckinsey.com/featured-insights/mckinsey-explainers/what-is-design-thinking>.

Milstead, E. (2020). *Trademarks: How Starbucks Claimed the Frappuccino*. [online] sites.psu.edu. Available at: <https://sites.psu.edu/emberpassion/2020/02/07/trademarks-how-starbucks-claimed-the-frappuccino/>.

Palaniappan, N. (2024). *Unveiling the Success of 'My Starbucks Idea': A Masterclass in Customer Engagement*. [online] www.linkedin.com. Available at:

<https://www.linkedin.com/pulse/unveiling-success-my-starbucks-idea-masterclass-palaniappan-q> i0sc/
[Accessed 14 Jul. 2024].

Rittenberg, J. and Main, K. (2023). *Copyright: What It Is And How To Register – Forbes Advisor*. [online] www.forbes.com. Available at: <https://www.forbes.com/advisor/business/what-is-copyright/>.

Sheppard, B., Sarrazin, H., Kouyoumjian, G. and Dore, F. (2018). *The business value of design / McKinsey*. [online] [www.mckinsey.com](https://www.mckinsey.com/capabilities/mckinsey-design/our-insights/the-business-value-of-design). Available at: <https://www.mckinsey.com/capabilities/mckinsey-design/our-insights/the-business-value-of-design>.

Simon, H.A. (1969). *The Sciences of the Artificial*. Cambridge, Mass.: M.I.T. Press.

Toesland, F. (2023). *Starbucks remains relevant through constant reinvention*. [online] The CEO Magazine. Available at: <https://www.theceomagazine.com/business/marketing/starbucks-reinvention/>.

Tuttle, G. (2021). *What Is Design Thinking and Why Is It important?* [online] Wework Ideas. Available at: <https://www.wework.com/ideas/professional-development/creativity-culture/what-is-design-thinking>.

WIPO (2016). *What is Intellectual Property?* [online] WIPO. Available at: <https://www.wipo.int/about-ip/en/>.

