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PATENTED PERFORMANCE: DRIVING THE MARKETING AND BRANDING OF OURA AND MUSE FOR STUDENT ATHLETE WELLNESS

By

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Abstract

This research shows how brands use patented technology as a marketing tool to position health monitoring wearables for student athletes, exemplified by the Oura Ring and Muse Headband. Intellectual property and patents act as a signal of integrity and performance guarantees, driving marketing strategies that target niche segments such as student athletes. While these products assist with stress reduction, improving focus and improving mental well-being, they track EEG waves and heart rate to assess consumers' cognitive and overall health conditions. This enables niche segments such as student athletes to maintain a balance between academics and sports. While wearable technology offers increasing benefits in daily life, research comparing devices of similar caliber remains limited. This research evaluates the efficiency of marketing strategies that leverage patents and intellectual property to strengthen companies' market positions, focusing on student athlete wellness and their challenges in balancing academic expectations alongside sports performance.

Methodology: *This study adopts a qualitative secondary research design, exclusively analysing online and publicly available data, including previously published research, patent documentation, product marketing materials, company reports, and media articles. No interviews or primary data collection were conducted. The approach centers on rigorous content analysis and thematic synthesis of secondary sources to explore how patents and intellectual property influence marketing, branding strategies, and trust in wearable wellness technologies for student athletes.*

Findings: *Analysis of secondary data shows that patents and visible intellectual property achievements increase perceived credibility, trust, and willingness to adopt wearable technologies among student athletes. Reviewed materials highlight how companies*

strategically leverage patent status and legal victories in public marketing to differentiate themselves and substantiate scientific claims.

Practical implications: *The findings indicate that marketers and institutions should foreground patents and IP status in wellness product communications to promote acceptance and trust among student athletes. Institutions selecting technology for athlete wellness programming may consider prioritising products with documented IP protection and scientific validation to maximise engagement and perceived efficacy (Cheong et al., 2023).*

Keywords: *student athletes, wellness technology, wearable devices, patents, intellectual property, secondary data, marketing, branding, and qualitative research.*

Introduction

Technology has become an essential component in today's competitive environment, serving as a critical tool in supporting athlete wellness and enhancing sports performance (Catapult, 2024; Park et al., 2024). For student athletes, concerns extend beyond how these devices function to the degree to which such technologies provide fair and scientifically validated outcomes necessary to foster trust and credibility (Moldstud, 2024; ChooseMuse, 2023). The pressures faced by this group are considerable, as they must balance rigorous academic obligations alongside intense training, mental focus, and recovery, all within the constraints of structured and often unforgiving schedules (NCAA, 2024; Rutgers University Athletics, 2020).

Wellness technologies have become indispensable in this context, reducing stress and improving performance by delivering personalized tools that increase focus, manage stress, enhance recovery, and introduce guided meditation for optimal student athlete wellness (Catapult, 2024). Unlike the era of non-essential "gadgets," the current landscape demands scientifically grounded devices that can actively contribute to athletes' holistic health and competitive edge (Park et al., 2024). Wearable technology and neurofeedback devices now offer continuous tracking of physiological and cognitive parameters, empowering athletes to optimize their routines and

training in a timely, evidence-based manner. However, such technological proliferation has also led to questions of reliability and effectiveness, since not all wearables deliver consistent or proven results (Moldstud, 2024).

Here, the roles of patents and intellectual property (IP) become especially salient in marketing and branding. Historically regarded as legal instruments, patents are increasingly leveraged as brand signals that convey trust, performance, and authenticity (Patent Business Lawyer, 2020). Student athletes and their advisors view visible patents and IP achievements as powerful credibility indicators markers of innovation rigor, scientific substantiation, and reduced uncertainty. In niche athlete markets, the perceived stakes are high. IP visibility bolsters user confidence that wellness technologies are built on validated methodologies and novel innovation, increasing their willingness to adopt technologies that would otherwise face skepticism (Catapult, 2024; Patent Business Lawyer, 2020).

Student athletes operate in a decision-making environment distinguished by the dual imperatives of opportunity and risk. The implementation of new technology represents both a route to optimized performance and a potential source of unforeseen complications. In this context, patents serve as persuasive signals, reducing perceived risk and supporting informed, confident choices in product adoption (Tate, 2017). Consequently, IP achievements through granted patents, published portfolios, or public litigation outcomes not only protect innovation but also shape market perceptions, offering clear differentiation in a crowded and rapidly evolving industry (Patent Business Lawyer, 2020).

As student athletes increasingly rely on wellness technology to manage academic, physical, and psychological challenges, the need for trustworthy, effective solutions grows. Intellectual property used strategically builds the confidence required for the adoption of performance-enhancing tools, supporting both individual athlete development and the broader

ecosystem of sports and wellness technology (NCAA, 2024; Catapult, 2024).

Student Wellness Needs

Student Athlete Wellness is a more comprehensive idea rather than just focusing on physical health, since it involves variety of aspects in their life like social life, mental health and emotional balance (Wawa-Egbuche, 2025). Student Athletes must constantly manage their academics along with their sports performance when compared to non-athlete peers. These pressures that Student Athlete face puts a lot of pressure in them that require a lot of guidance and support from their respective coaches and universities (Huron Consulting Group, 2023). Recognizing this, wellness must be viewed through a holistic approach lens that addresses every dimension of a student athlete's life.

Sports focus primarily on physical health, but for student athletes it deals with emotional and mental wellbeing. Student athlete wellness is a complex, multidimensional framework that includes physical health, social belonging, emotional resilience and psychological well-being (Sato et., 2023). Unlike their non athlete peers, student athletes should manage their dual burdens of intense academic responsibility and competitive athletics resulting in a unique set of stressors that place their overall well-being at risk. Research has shown the importance of approaching student athlete wellness through an integrative lens where physical health includes injury prevention, sleep hygiene, and nutritional status are deeply interconnected with mental health outcomes such as anxiety, stress, burnout, and depression (NCAA, 2023; Wawa-Egbuche, 2025).

The intense requirements of competition, training and maintaining the eligibility criteria create sustained time pressures and disrupt the athlete's routines necessary for academic performance and for their recovery as well. Reports from student athletes have been studied frequently that over one third of female athletes feel mentally drained due to high level of mental exhaustion and nearly half experience chronic stress (NCAA,

2023). High Performance expectations, fear of failure and the pressure to maintain scholarships or team positions further add to this stress, sometimes pushing athletes toward unhealthy lifestyle like substance abuse or eating patterns (NCAA, 2023; Wawa-Egbuche, 2025). Injury is also a major concern, as it can affect an athlete's sense of identity, isolate athletes from their team members and increase vulnerability to mental health problems (Wawa-Egbuche, 2025).

Social and cultural factors significantly influence student athlete's wellness experiences. Those from underrepresented or minority backgrounds often face challenges like social isolation, biased environments and limited access to specialized resources (Wawa-Egbuche, 2025). Excessive focus on athletic norms, such as prioritizing mental strength or playing through pain discourages athletes from seeking help makes potentially harmful practices seem normal. At the same time, the strict routines of athlete's daily activities which offer little flexibility or autonomy, can restrict their access to campus resources and limit opportunities to develop broader social identities (Wawa-Egbuche, 2025).

Modern Strategies among this group to support wellness is deeply relying on technology these days. Wearable devices and brain feedback tools help track physical parameters like sleep quality, heart rate variability, tiredness and training load in real time giving useful information to boost performance, lower risk of injury and support individualized recovery (Catapult, 2024; Wawa-Egbuche, 2025). These technologies help in focusing, managing stress and behavior improvement. For instance, by providing biofeedback that allows athletes to control anxiety and improve concentration during training and competitions (Catapult, 2024). However, not all technologies are tested or equally reliable so choosing and using these tools should be based on evidence and adapted to each athlete's needs and situation (Wawa-Egbuche, 2025).

Institutional responses to these challenges have become more holistic. The NCAA and other governing bodies

are now advocating campus wide models that integrate counseling services, academic support, health policy and coordinated care for mental and physical wellness (Huron Consulting Group, 2023; NCAA, 2024). Collaborative approaches by bringing together coaches, medical staff, trainers and administrators aim to improve interventions and achieve better outcomes. Peer and social support networks also help reduce stress and feelings of isolation, especially when they are part of inclusive and diverse team environments (Wawa-Egbuche, 2025).

To sum up, understanding and addressing student athlete wellness requires attention to physical health, mental wellbeing, social factors, and technology. Effective strategies should focus on encouraging athletes to ask for help and take care of themselves by identifying risk early, using both human and technological resources to create lasting support systems tailored to the unique challenges student athletes face in higher education today (NCAA, 2024; Wawa-Egbuche, 2025).

Background and Significance

Oura and its Product Overview

Oura health founded in 2013 in Finland, is committed to helping people gain a deeper understanding of their well-being through holistic and science-based insights. Oura ring provides personalized and actionable health information that combines advanced sensor technology with data analytics.

The Company emphasizes on holistic wellbeing, highlighting the Interconnectedness between sleep, recovery, and daily activity as they play a key factor in optimizing both physical and cognitive performance.

The Oura ring is a refined wearable device designed to continuously monitor physiological signals such as body temperature, heart rate variability (HRV), and movement. The Oura ring provides highly accurate sleep tracking, recovery metrics and readiness scores as it is uniquely positioned as ring rather than a wristband. Its target market consists of those aiming to improve their wellness

through data driven insights by catering to athletes, professionals and health-conscious individuals. From a technological perspective, Oura combines accelerometers and photo plethysmography (PPG) with proprietary algorithms, transforming biometric data into comprehensible and insightful scores. Setting it apart as a leader in sleep and recovery monitoring for both consumer and athlete populations, the Oura Ring emphasis accuracy, extended battery life, and a user-friendly design, positioning it as a leading tool in innovation. (de Zambotti et al., 2019; Peterson,2022).

Muse and its Product Overview

Muse Headband founded in 2013 headquartered in Toronto, Canada, by InteraXon Inc, the founder of Muse aims to make mindfulness accessible and measurable through technology. Muse's mission is to improve mental well-being by empowering individuals through real time brainwave feedback. Through guided meditation and cognitive training applications, the company focuses on EEG and neurofeedback technologies designed to enhance focus, reduce stress, and fostering emotional balance. (Hershkovitz, 2024).

The Muse headband is a brain sensing wearable that combines functional near infrared spectroscopy (FNIRS) with electroencephalography to monitor brain activity during meditation and cognitive exercises. Muse Headband helps users in developing attention and emotional regulation by providing real time auditory feedback, such as calming sounds during focused states and storm sounds when the mind begins to wander. The core value proposition of Muse is to make mindfulness a measurable and trainable skill through advanced neurotechnology. The product targets individuals interested in cognitive health, including athletes, professionals, and those seeking mental resilience. Muse's technological advantage of multi modal sensing and sophisticated machine lies in its patented combination by learning algorithms that deliver actionable neurofeedback through engaging and

user-friendly formats (Smith et al., 2024; Hershkovitz, 2024).

IP Portfolios as Marketing Assets

Intellectual property (IP) portfolios which consists of patents, copyrights and trademarks function as a vital strategic resource that go beyond their traditional role of legal protection and marketing strategies of business expansion (UpCounsel, 2018; Nerac, 2024). Portfolios that align innovation with broader organizational objectives through effective intellectual property management, thus maximizing the economic influence and competitive positioning of products within specific market niches. Within the domain of student-athlete wellness wearables, IP portfolio function as hard evidence of original, research driven innovation, strengthening credibility in a high stakes consumer market where confidence is essential.

The visibility of patents and other Intellectual Property rights have transformed their legal rights into tangible market facing signals of authenticity and product differentiation. Through public patent markings, comprehensive IP disclosures and a successful enforcement outcome help to create uniqueness and reliability that helps reduce uncertainty among student athletes and their respective mentors (LexisNexis, n.d.; UpCounsel, 2018). This signaling effect plays a critical role in positioning patented wearables ahead of competitors by suggesting a verified technology platform where marketing teams utilize to reinforce brand positioning which highlights scientific innovation and methodological precision.

From a Marketing Perspective, IP portfolios create authentic storytelling opportunities that showcase a brands commitment to research and product reliability. By building customer confidence and marketing impact, patents and trademarks validate claims related to product effectiveness (Abounaja, 2020). This content allows specialized messaging to connect with target audience like student athletes, the content is integrated across owned media, retail collateral and influencer collaborations. The portfolio's validity reinforces the brand's unique product

positioning, to prevent the competitors from diminishing the brands perceive value.

Expanding the market reach and revenue streams including licensing agreements and co-branded partnerships, results in a strong IP portfolio that facilitates monetization avenues strategically. (Nerac, 2024). Assets that are critical for sustained growth and innovation attract investment interest and institution level collaborations demonstrating the IP strength to investors. However, maintaining trust and legal compliance using IP as a marketing asset effectively requires adherence to responsible disclosure practices, ensuring that their scope and implications of patent rights are not overstated (Abounaja, 2020).

Maintaining an adaptable IP strategy is essential in dynamic, fast evolving sectors such as wearable technology for athlete wellness. IP assets remain relevant and impactful within marketing narratives through Continuous portfolio auditing, alignment with business developments, and responsiveness to market shifts. By connecting deeply within the student athlete community and beyond, companies can create compelling, credible brands by integrating patent signaling with robust evidence and transparency.

Objectives of the Study

Primary Objective

To evaluate the effectiveness of leveraging patents and intellectual property portfolios of wellness technology brands in marketing and branding to foster trust, perceived credibility, and adoption among student athletes.

Sub-Objectives

To investigate how Oura and Muse utilize their IP portfolios such as patents and proprietary technology in strategic brand positioning, promotional materials and public communications targeted towards student athletes and their institutions (Nguyen, 2022; Patent Forecast, 2025).

To assess how these branding efforts, along with the main wellness functionality of each product, influence

student athletes trust, perceptions of product efficacy, and intentions to adopt and recommend the technology. (Brinkman et al., 2022; Smith et al., 2024).

To compare the technological and strategic positioning of the Oura Ring and Muse headband by evaluating the role of their unique IP assets and design features of each product in shaping competitive edge and wellness value propositions for student athletes (Hershkovitz, 2024; Oura Health, 2024).

To determine the new challenges and best practices in the integration of approved wellness technologies within student athletic programs, considering factors such as device selection, standards of evidence and ethical considerations. (Cheong et al., 2023; Gratton and Jones, 2020).

Literature Review

The Role of Wearable Technologies in Athlete Wellness

Wearable technologies have emerged as an inseparable part of the optimization of the health and performance of athletes due to the possibility of continuous monitoring of physiological and cognitive parameters that are non-invasive. Wearables such as the Oura Ring and Muse Headband can be used to promote holistic wellness by monitoring different, yet complementary areas: physical recovery, quality of sleep and cognitive-emotional regulation. These technologies enable athletes to get actionable and data-driven insights to guide training loads, recovery plans, stress management, and mental attention to boost physical and cognitive performance. Besides, wearables enhance self-awareness and behavioral adjustment, which are essential to injury prevention and long-term athletic performance (Seshadri et al., 2021; Mah et al., 2021).

Validation and Comparative Efficacy of Oura Ring and Muse Headband

The Oura Ring has studies that have shown high coherence with the polysomnography in regards to total sleep time and sleep-wake detection using the accelerators and photo

plethysmography to display reliable physiological measurements, including heart rate variability and readiness scores. Its advantages are associated with monitoring sleep and physical recovery, but the classification of sleep stages remains to be enhanced (de Zambotti et al., 2019; Steinberg et al., 2021). It is proven to be viable in athletic populations in terms of recovery and performance awareness (Brinkman et al., 2022; Peterson, 2022). Conversely, Muse Headband employs neurofeedback with electroencephalography and functional near-infrared spectroscopy to provide real-time cognitive recovery, emotional regulation and mindfulness. Although it has been shown to be effective in the context of enhancing attention and stress management with the help of guided meditation, studies about its direct influence on sports performance and head-to-head studies compared with such devices as Oura are scarce (Hershkovitz, 2024; Smith et al., 2024; Cowan, 2023). These devices collectively provide unique contributions to athlete wellness and thus there is a need to conduct integrative studies that compare or contrast their effects.

Patents and Intellectual Property as Strategic Marketing Assets

Patents and proprietary algorithms that the Oura Ring and Muse Headband are based on constitute a crucial competitive advantage, and it guarantees a technological lead and creation of brand differentiation. The examples of Oura integrating multisensor data analytics and proprietary readiness scoring algorithms look like innovation that is safeguarded by intellectual property and increases consumer confidence and positioning (de Zambotti et al., 2019). In a similar manner, the EEG and fNIRS (functional Near-Infrared Spectroscopy) sensing with adaptive machine learning algorithms developed by Muse allows providing unique neurofeedback experience, which can be used as a marketing story about the latest cognitive health technology (Hershkovitz, 2024). Not only do these intellectual properties provide protection to R&D investment, but they also act as

strategic marketing resources by indicating scientific rigor and leading the target demographics who include athletes and health conscious professionals to adopt it. To overcome competition in the market, companies use patents to explain uniqueness of devices, to explain high pricing, and to build relationships in sports and wellness ecosystems, which enhances market power as competition intensifies.

Research Gaps

Even with a growing validation and adoption, critical research gaps about the application of the Oura Ring and Muse Headband in athlete wellness remain. The majority of validation of the Oura Ring is done with healthy people, and its use in clinical, sleep disordered, and other athletic groups is under-studied (Herberger et al., 2025). The validity of detecting sleep stages of individuals and the reliability of this method in the real-life sports setting is not proved yet. In a similar manner, despite the potential promise of the Muse Headband in cognitive recovery and neurofeedback, peer-reviewed articles directly addressing the effects of the device on sports performance, the ability to compare it to other physiological wearables, and its effects on student athletes are scarce (Cowan, 2023; Hershkovitz, 2024). Moreover, there is limited evidence of longitudinal studies that have been conducted to evaluate the effects of these devices on performance measures, injury rates and adherence to behavior in athletics. The use of physiological monitoring (Oura) with neurofeedback (Muse) tools as part of a full recovery program also has not been sufficiently explored. Lastly, the aspects of ethical considerations, user privacy, and compliance issues regarding the usage of wearable data should be given an additional specific study (Seshadri et al., 2021; Litvin et al., 2022).

Contributions

The studies on the Oura Ring and Muse Headband present their roles in the well-being of athletes in terms of offering scientifically verified and user-friendly devices that can help monitor the overall state of health. Taking advantage of the Oura Ring, athletes can maximize physical recovery and

training adaptations by providing precise and continuous sleep data, data on heart rate variability, and data on readiness to recover (de Zambotti et al., 2019; Brinkman et al., 2022; Peterson, 2022). In the meantime, the Muse Headband helps in cognitive recovery via the use of real-time neurofeedback to enhance focus, minimizing stress, and enhancing mindfulness practices (Hershkovitz, 2024; Smith et al., 2024). Collectively, these devices move the wearable technology forward to touch on both physical and mental areas of athlete performance, encouraging data-driven wellness and resilience in highly intense sports settings (Cowan, 2023; Seshadri et al., 2021).

Methodology

Rationale Rationale of qualitative, Secondary Research Design

This paper is a qualitative, secondary research with the objective of analytically examining the role of patents and intellectual property (IP) in marketing and branding wellness technologies that are aimed at student athletes. The qualitative methodology was selected because it can give a comprehensive, contextual perception of the nature of branding, trust, and technology acceptance as rather complicated and subtle concepts that cannot be easily quantified by quantitative means (Smith et al., 2025; Talha, 2022). Secondary research allows the integration of a variety of views and evidence that is already present in the peer-reviewed literature, corporate communications, public patent documents and the press coverage, which leads to the overall triangulation of data sources that are pertinent to the continuously underdeveloped area of sports wellness technology.

Data Sources

- This study has relied on data obtained in:
- Academic research in the field of sports wellness, wearable technology, and intellectual property strategy published by peer-reviewed journals.
- Company messages, including annual reports, product documentation and promotional

materials of Oura, Muse and partners.

- The patent databases and legal documentation about the IP portfolios of Oura and Muse.
- Information about the media coverage and brand case studies published by well-established technology, health, sports magazines.

These materials are quite robust in probing into the technical and strategic aspects of product differentiation and trust-building in student athlete wellness market.

Method of Data selection and collection

Purposive sampling approach was embraced so as to get sources that were specifically pertinent to research questions. Academic sources were found with the help of keywords, namely, student athlete wellness, wearable technology, neurofeedback, patents, and brand trust in academic databases (e.g., PubMed, Scopus, Google Scholar). Official websites of corporations and patent offices were searched to retrieve corporate and patent data and make sure that the information is up-to-date and authentic (Gratton and Jones, 2020). The articles on the media were filtered according to their authoritativeness and factual correctness. Only the sources published in the English language since 2019 were selected, which can be attributed to the latest technological and market trends.

Issues/Thematic Analysis Techniques

Inductive thematic analysis was used as the method of analysing data that is the most appropriate to the qualitative research in the study of sports and branding (Smith et al., 2025). The coding and repetition of a theme were performed on the documents to identify the similarities in themes in response to (a) the role of patents in brand stories, (b) trust-building and technological validation strategies, and (c) student athlete adoption and perception of wellness technology. Thematical maps were created to display the connections between IP strategy, technology differentiation and consumer attitudes. Both explicit (e.g. brand marketing assertions) and latent (e.g., legal positioning,

competitive narratives) meanings were considered.

Restrictions and moral issues

This study is limited as a secondary analysis because it would be based on publicly available data that may fail to reflect proprietary knowledge or unpublished developments in the industry practice in the present. The lack of primary data (e.g. interview of athletes or actual observations) limits the possibility of generalizing the findings to all student athlete populations. Ethical concerns involve proper citation, plagiarism prevention and skepticism on the possibility of bias in materials sourced by the corporate and the media. The references are all mentioned in a transparent way according to the academic standards (Gratton and Jones, 2020; Talha, 2022).

Results

Thematic Findings

Patent and Intellectual Property Portfolio Usage in Communications

Oura Health and Muse headband have both actively used their patent portfolios as key tools in shaping their marketing and communication strategies. Oura's extensive patent holdings underpin its claims of competitive advantage and scientific rigor in sensor technology and algorithmic insights (Oura Health, 2024; PatentForecast, 2025). Fostering trust among consumers and institutional buyers, publicizing legal success and patent approvals reinforces brand authenticity. Similarly, Muse reinforces its positioning as a leader in mental performance technology by emphasizing its patented EEG and neurofeedback methodologies to differentiate itself within the cognitive wellness space (Hershkovitz, 2024; Smith et al., 2024). These IP Portfolio disclosures help reduce perceived risk and enhance user confidence, thereby serving as powerful signals of product legitimacy and efficacy (Martin, 2022; Nguyen, 2022).

Evidence on Product Efficacy and Performance

The Oura Ring specifically helps track sleep stages and physiological markers that drive readiness and resilience

scores, and it has demonstrated robust validation when utilized by athletes and coaches (de Zambotti et al., 2019; Peterson, 2022). The Oura ring's continuous improvement and multi sensor approach facilitated through firmware updates, contribute to its clinical and athletic credibility (Steinberg et al., 2021). Muse's EEG headband supports cognitive recovery, stress reduction, and focus improvement through validated neurofeedback capabilities (Cowan, 2023; Hershkovitz, 2024). However, comparative efficacy studies between the two devices in student athlete populations remain scarce, highlighting an important research gap (Lacey & Whyte, 2022).

Patterns in branding and athlete customer adoption

For student athletes who prioritize evidence-based wellness solutions, brand narratives highlighting patents, innovation and scientific validation are crucial in influencing adoption (Nguyen, 2022; Huron Consulting Group, 2023). To strengthen credibility, both companies engage in athlete endorsements, collaborations with collegiate partnerships, and transparent communication of IP achievements (Rutgers University Athletics, 2020; Martin, 2022). Trust in patented technology is often cited in user feedback and institutional adoption, showing how IP functions as an embedded marketing asset in these specialized markets (Peterson, 2022).

Comparative insights Oura vs Muse

While the Oura Ring primarily emphasizes physiological tracking to support physical recovery, the Muse Headband focuses on cognitive and mental performance through EEG neurofeedback techniques (Peterson, 2022; Hershkovitz, 2024). Thus, the two devices address complementary areas of student athlete wellness, with patents supporting their distinct value propositions. Oura Ring's patented hardware and algorithmic innovations enable broad application in sleep and stress monitoring, while Muse's intellectual property emphasizes brain sensing technologies and meditation

guidance (Oura health, 2024; Hershkovitz, 2024). The absence of direct comparative studies suggests a need for future empirical work to clarify variations in adoption and outcome patterns.

Discussion

The result of this work contributes to the growing research on intellectual property (IP) as both a strategic and symbolic resource in the wellness technology market segment, particularly for student athletes. Strong IP portfolios, including patents, trademarks and proprietary designs, do not appear merely as legal protection, but as the main drivers of brand credibility, consumer confidence, and uptake (WIPO, 2023; IPWorksLaw, 2025). In the case of student athletes, whose decisions directly affect performance, scholarship access and organizational culture, branding signals such as Oura and Muse communicate innovation and enhanced effectiveness. Prior studies indicate that trust is closely connected to the sense of authenticity, scientific validity, and the exclusivity of features, which is reinforced through Intellectual property communications and legal protections (IPWorksLaw, 2025; PatentForecast, 2025) in the sports and health technology sectors.

This credibility-building role is reflected in consumer behavior literature on wearables, where perceived credibility and technological differentiation are significant predictors of both usage and recommendation. (Zhang et al., 2023; Cheung et al., 2019). Our analysis shows that Oura and Muse leverage their IP portfolios to invest in the explicit brand marketing (e.g. referencing patents in marketing literature) and in implicit brand storytelling where student athletes are more likely to make these devices part of their wellness routines. Furthermore, IP plays a wide-ranging role that goes beyond protection and branding, since such portfolios form the foundation of licensing, strategic partnerships and athlete endorsements, all of which increase the use and perceived value of

wellness technologies (WIPO, 2023; IPWorksLaw, 2025).

Theoretically, this study places IP both in the context of legal and innovation frameworks, as well as within service-dominant logic and trust-based marketing frameworks. Practically, the research highlights the importance of brands and institutions to actively convey proven IP achievements and visualized evidence of performance, particularly in contexts where student athletes remain doubtful due to prior exposure to unproven or generic technologies (Bardus et al., 2021; WIPO, 2023). The emerging issues involve keeping pace with changing IP regulations in the digital and biometric worlds, data security and ownership, and the continuous introduction of new evidence standards in marketing communications.

Overall, IP strategy combined with focused marketing and branding reinforces the market presence of wellness technology providers and increases the chances of effective adoption among student athlete groups. This dual emphasis contributes to the theoretical discussion on trust in health technologies, and it offers practical guidance for practitioners who want to form a distinction and ethically market innovative sports wellness solutions.

Conclusion

This study highlights the essential role of intellectual property (IP) in the improvement of marketing performance, brand integrity and uptake of wellness technologies among student athletes. Through a qualitative, secondary analysis, it became evident that strong IP portfolios, when combined with strategic communications and branding, have a great role to play in the perceived credibility and uniqueness of products such as the Oura Ring and Muse Headband (PatentForecast, 2025; WIPO, 2023). The results support existing sources of evidence by proving the significance of patents as defensive tools of law, but as assets that signal reliability, quality and innovation and thus driving the adoption of

technology in a high-performance sports context (Bardus et al., 2021; IPWorksLaw, 2025). While the findings are promising, a number of constraints must be acknowledged. First, relying on secondary data limited the possibility of obtaining current and lived experiences of student athletes, with self-reported behavioral and attitude changes possible based on emerging technologies or policy changes (Bardus et al., 2021). In addition, most of the existing research is cross-sectional, making it difficult to establish causal relationships or generalize results to different sporting environments and groups (Bardus et al., 2021; Park et al., 2024). The issue of data accuracy, device compliance, and privacy or ethical concerns are other technical constraints which complicate the long-term effects and fair integration of wearables into student athlete wellness programs (Gu et al., 2025; IJRPR, 2023). Lastly, there are the possibilities that marketing content of brands can lead to bias and more unbiased, independent analyses should be considered in prospective studies.

Further research should address these gaps on a large scale, longitudinal, and multi-site studies involving varied populations of athletes and involving direct users. Mixed-method designs based on in-depth interviews, ethnographic observation, and real-world performance analytics will provide more detailed and practical information on how student athletes use and trust IP-supported technology over the long term (Bardus et al., 2021; Gu et al., 2025). The use of devices, the changing environment of regulations concerning privacy, and the best practice in showing the results of transparent and evidence-based branding should also be mentioned. Notably, continuous partnership between technology developers, coaches, sport governing associations, and student athletes will be essential for optimizing wellness technologies and ensuring their responsible and scalable integration into sports.

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