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## An Elaborated Software Solution: The Tennis Ranking System

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Abstract: Athletes and spectators depend on the tennis ranking system to represent the truest caliber of athletic prowess; a careful look at the current ranking system though, reveals its main weakness: it undermines expectations of fans and players. Our study proposes several key changes to the existing ranking formula that provide a fair and accurate approach to measure player performance. The study proposes a modification of the system to value: participation, continued advancement, and overall achievement. The new ranking formula facilitates closing the trust gap, encouraging competition equality, engaging the fan base, attracting investment, and promoting tennis involvement worldwide. To probe the crux of our main contention we performed week-by-week comparisons between results procured from the current and proposed formulae. After performing this rigorous case-study of top players of each gender, the findings strongly indicated that there is identifiable inflation in the ranks and enhanced the conviction that the current system should be updated. The new system is accompanied by a web-based software package freely available to anyone involved or interested in tennis rankings. The software package is designed to automatically calculate new player rankings based on a responsive, multi-faceted formula that also generates projected point scenarios and provides separate rankings for the three different court surfaces. By taking a critical look at the current tennis ranking system with consideration to the perspective of fans, players, and businesses involved, an upgrade is in order for it to maintain the balance of trust between fans and the evaluation process. In closure, this proposed solution increases fair play competition, eliminates rank inflation, and better engages fans, players, and sponsors by bringing in a new era of professional tennis.

Keywords: measurement and evaluation, rules and regulations, sports management and marketing, tennis ranking system

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