

This paper addresses the multi-platform pricing optimization problem faced by digital publishers operating across platforms with heterogeneous royalty structures and market penetration. We develop a penalty-reward optimization framework that maximizes expected revenue while maintaining price affordability constraints, specifically designed for not-for-profit publishing organizations seeking to balance accessibility with financial sustainability. The model employs a logit demand function incorporating platform-specific price sensitivity parameters derived from both royalty rates and market share data, with prices constrained within empirically-derived bounds based on Canadian consumer purchasing patterns (\$8.99-\$49.99). Applied to six major digital publishing platforms including MoKa Reads, Leanpub, Kobo, Google Books, Barnes & Noble, and Amazon KDP, our Sequential Least Squares Programming optimization yields optimal prices ranging from \$15.23 to \$19.92, with an average price of \$17.46 closely aligned with the target of \$13.69. Sensitivity analysis reveals that optimal revenue occurs at a 75% royalty weighting rather than pure market share or royalty optimization, demonstrating an inverted-U relationship between weighting strategies and total revenue. The framework successfully addresses the fundamental trade-off between high-royalty, low-market-share platforms and dominant platforms with lower royalty rates, providing a systematic approach for publishers to implement the principle of “spending the least to support the most” while ensuring operational viability.