

ABSTRACT

Title: Innovativeness as a Factor Shaping Competitive Advantage in the Tobacco and Nicotine Products Market.

This dissertation examines the role of innovativeness in building and renewing the competitive advantage of firms operating in the highly regulated tobacco and nicotine products market. The starting point was the question of whether the development of innovation in this sector is primarily a response to regulatory pressure or whether it can also serve to actively shape a firm's competitive position. The analysis covers the period 2015–2025, during which smoke-free products, including heated tobacco products, e-cigarettes and modern oral nicotine products, developed rapidly alongside traditional tobacco products.

For the purposes of the study, the concept of contextual innovation was developed at the firm level and framed within four dimensions: technological (T), organisational (O), socio-market (S) and regulatory (R). Regulatory capability was treated as a distinct element of the analysis. The original contribution also includes the operationalisation of the individual dimensions and the application of this framework to firms operating in a highly regulated sector. The Contextual Innovation Index (KII) serves as an auxiliary ordering tool. It is additive and comparative in nature; it is neither a formal test of interaction nor a universal ranking of firm innovativeness.

The study combines a literature review, corporate and regulatory documents, market data, case studies, exploratory pooled OLS models and two in-depth interviews with representatives of independent producers. The quantitative analysis covers Philip Morris International (PMI) and British American Tobacco (BAT). The outcome variable was the revenue transformation indicator (PK), defined as the share of revenues from smoke-free products or New Categories in total revenues. This indicator is not treated as a direct measure of competitive advantage. The main sample for the regulatory dimension covers the period 2017–2025 (N=18), while the supplementary models for S and KII cover the period 2020–2025 (N=12). Under the adopted protocol, the T and O dimensions reached their maximum values in all PMI and BAT observations and therefore could not be included in the models as separate regressors. Japan Tobacco International (JTI) serves as a qualitative contrasting case.

The qualitative analysis revealed four distinct pathways of contextual innovation. PMI initially followed a concentrated technological-regulatory pathway, BAT a multi-category portfolio-organisational pathway, while JTI followed a more gradual and selective adaptation pathway. Independent producers, in turn, represented an agile niche-adaptive model based on shorter decision-making processes, market proximity, product quality, business relationships and the ability to respond rapidly to regulatory changes. The comparison of cases indicates that similar sectoral pressures do not lead to a single universal transformation strategy.

The quantitative results complement this picture. In the level model, variable R was positively associated with revenue transformation, although its separate statistical significance disappeared after the inclusion of a time trend. Variable S showed a very

strong positive association with PK, while the two variables partly describe the same commercialisation process from different perspectives. KII was positively associated with PK in the basic level model, but the relationship proved sensitive to the estimation method and the inclusion of a time trend. The quantitative results should therefore be treated as a complement to the qualitative analysis rather than as evidence of causal relationships.

H1 received support within the analysed cases of global firms. H2 received qualitative support at the level of the two independent producers studied, without grounds for statistical generalisation. The strongest support for H3 came from the qualitative analysis and the comparison of firm trajectories. The quantitative part of the dissertation played a supplementary role in this respect. The central hypothesis received support regarding the role of regulation as a persistent stimulus for adaptive action. However, the results do not allow regulation to be assigned an independent causal effect on the building of competitive advantage.

The contribution of the dissertation lies in the development and empirical application of the four-dimensional T–O–S–R framework, the formulation of an explicit method for its operationalisation, and the combination of the perspective of global corporations with that of independent producers. At the same time, the study demonstrates the limitations of the proposed measurement approach: the ceiling effect in T and O, limited variation in R, the conceptual proximity of S and PK, and the sensitivity of some KII results to the time trend.

Keywords: innovativeness, contextual innovation, competitive advantage, tobacco and nicotine products market, regulation, smoke-free products, Contextual Innovation Index.