Demand for Factory-Made cigarettes and Roll-Your-Own tobacco and differences between age and socioeconomic groups: Findings from the International Tobacco Control (ITC) Netherlands Survey

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Abstract
Introduction: Macroeconomic studies have shown that young individuals who smoke, and have a low socioeconomic status respond more strongly to price increases. Most of this evidence stems from research on factory-made (FM) cigarettes. With the rising popularity of roll-your-own (RYO) tobacco, there is a need for studies on cigarette demand that distinguish between both.

Aims and Methods: This study examined whether individual demand differed for FM and RYO tobacco, and across age, and socioeconomic (income and education) groups. Purchase tasks for FM and RYO cigarettes were included in the 2020 International Tobacco Control (ITC) Netherlands Survey. Adults who smoke daily (n = 1620) stated how many cigarettes they would smoke in 24 hours across eight prices. Four demand indices were derived: intensity (consumption at zero costs), alpha (rate of change in elasticity), P max (turning point elasticity), and breakpoint (lowest price where consumption equals zero). The indices were tested for subgroup differences.

Results: Individuals who smoke RYO tobacco indicated higher intensity, and greater alpha than individuals who smoke FM cigarettes. Participants aged 25–39 had lower P max, and 18–24 year olds displayed higher breakpoints. Participants with low income displayed higher intensity, and lower P max than other income groups. No associations were found with education.

Conclusions: Individuals who smoke RYO tobacco indicated higher price sensitivity than those smoking FM cigarettes, supporting the need to harmonize tobacco taxation. Taxation may be especially beneficial to reducing consumption among individuals with a low income or smoke RYO tobacco. Substantially higher prices are needed in the Netherlands to achieve the desired results.

Implications: Individuals who smoke daily were willing to pay substantially higher prices than the current market prices, indicating the room and need for much higher taxation levels. Demand for RYO tobacco was more sensitive to price changes than demand for FM cigarettes. Taxation should be raised at equivalent rates for FM and RYO cigarettes. Taxation appears to be especially effective in reducing consumption among people who smoke RYO tobacco and low-income individuals. It remains important to combine increased taxation with other tobacco control measures.

Recommended Citation