A Study of the Relationship between Modern Food Retail Penetration and Urban Indonesian Consumers’ Food Shopping Behaviour, Consumption and Dietary Patterns

By
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Declaration

I certify that this work contains no material which has been accepted for the award of any other degree or diploma in any university or other tertiary institution and, to the best of my knowledge and belief, contains no material previously published or written by another person, except where due reference has been made in the text. In addition, I certify that no part of this work will, in the future, be used in a submission for any other degree or diploma in any university or other tertiary institution without the prior approval of the University of Adelaide and where applicable, any partner institution responsible for the joint-award of this degree.

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North Terrace Campus, December 2015

Hery Toiba
Abstract

Indonesia is experiencing a dramatic growth in the number of modern food retailers, such as hypermarkets, supermarkets and mini-markets. Given this, policy makers are concerned about the impact of ‘modern food retail penetration’ or ‘supermarket penetration’ on Indonesian food chain participants. The primary objective of this thesis is to analyse, in an urban Indonesian context, the relationship between modern food retail penetration and changes in food shopping behaviour and dietary patterns. Data from a survey of 1,180 urban households from three Indonesian cities: Surabaya, Bogor, and Surakarta, are scrutinized to shed light on these issues.

The first analysis focused on factors that help explain consumers’ shopping behaviours. In this respect, the frequency of shopping for food at modern versus traditional retail outlet formats was examined. Findings show that traditional food retailers are still used most frequently by the majority of consumers. Consumers who shopped more frequently at modern food retailers tend to have higher incomes, more education, more assets, credit cards, and higher concerns about nutrition information labels and food safety. Conversely, price-sensitive consumers were more likely to shop at traditional food retailers.

The second study expanded upon consumer’s choice of food retail format and examined the determinants of consumers’ food expenditure shares in both modern and traditional food retail formats. The results of econometric analysis confirm that consumers who had the highest probability in spending more on food in modern food retailers were consumers with children under 5 years old, a high-income, education, and asset as well as concerned about safety. On the other hand, sensitive-price consumers were more likely to patronize in traditional food retailers.

The third analysis extended to the knowledge the effect of food expenditure shares at modern food retailers on diets and health outcomes. The results of OLS and Instrumental
Variables regressions suggest a negative and significant relationship between the share of food expenditure at modern food retailers and the healthiness of consumer food purchases even after controlling for other characteristics (e.g., age, gender, education, income) that may also contribute to food consumption decisions. The final chapter summarises the key findings and provides policy recommendations and opportunities for future research.
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### Abbreviations

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<th>Description</th>
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<tbody>
<tr>
<td>ACIAR</td>
<td>Australian Centre for International Agricultural Research</td>
</tr>
<tr>
<td>ANOVA</td>
<td>Analysis of Variance</td>
</tr>
<tr>
<td>BMI</td>
<td>Body Mass Index</td>
</tr>
<tr>
<td>FAFH</td>
<td>Food away from home</td>
</tr>
<tr>
<td>FAO</td>
<td>Food Agriculture Organization</td>
</tr>
<tr>
<td>FDI</td>
<td>Foreign Direct Investment</td>
</tr>
<tr>
<td>FFV</td>
<td>Fresh Fruit and Vegetables</td>
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<tr>
<td>GHK</td>
<td>Geweke-Hajivassiliou-Keane</td>
</tr>
<tr>
<td>ICASEPS</td>
<td>the Indonesian Centre for Agriculture Socio-Economic Research and Policy Studies</td>
</tr>
<tr>
<td>IDR</td>
<td>Indonesia Rupiah</td>
</tr>
<tr>
<td>IFPRI</td>
<td>the International Food Policy Research Institute</td>
</tr>
<tr>
<td>IMF</td>
<td>the International Monetary Fund</td>
</tr>
<tr>
<td>IV</td>
<td>Instrumental Variable</td>
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<td>KMO</td>
<td>the Kaiser-Meyer-Olkin</td>
</tr>
<tr>
<td>KPPU</td>
<td>Komisi Pengawasan Persaingan Usaha (Commission for Supervision of Business Competition)</td>
</tr>
<tr>
<td>LoI</td>
<td>Letter of Intent</td>
</tr>
<tr>
<td>LPG</td>
<td>Liquefied Petroleum Gas</td>
</tr>
<tr>
<td>OLS</td>
<td>Ordinary Least Square</td>
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<tr>
<td>QML</td>
<td>Quasi-Maximum Likelihood</td>
</tr>
<tr>
<td>NCDs</td>
<td>Non-Communicable Chronic Diseases</td>
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<tr>
<td>SD</td>
<td>Standard Deviation</td>
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<tr>
<td>Acronym</td>
<td>Full Form</td>
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<tr>
<td>Susenas</td>
<td>Survey Sosial Ekonomi Nasional (The National Socioeconomic Survey)</td>
</tr>
<tr>
<td>UK</td>
<td>the United Kingdom</td>
</tr>
<tr>
<td>US</td>
<td>the United States</td>
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<tr>
<td>USDA</td>
<td>the United States Department of Agriculture</td>
</tr>
<tr>
<td>WHO</td>
<td>World Health Organization</td>
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<tr>
<td>2SLS</td>
<td>Two Stage Least Square</td>
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