

Research Assessment Exercise 2020
Impact Case Study

University: The Hong Kong University of Science and Technology

Unit of Assessment (UoA): 22-Business

Title of case study: Direct Marketing Regulation

(1) Summary of the impact

Government surveys indicated that in 2013 Hong Kongers were bombarded by as many as 210,000 telemarketing calls a day, that 96% of people surveyed regarded them as a nuisance, and only 10% of the calls resulted in a purchase. This indicated that the industry, employing some 7,000 people in Hong Kong, was not only irritating to the general public, but ineffective. Research by Professor Hui Kai-Lung into direct marketing addressed this problem by analyzing the impacts of different regulatory options, including opt-out and call filtering services, and calling for reform. The research and his outreach has had societal impact in stimulating public awareness of the trade-offs in direct marketing regulation, and impact on public policy by informing debate during the government's public consultation on regulating person-to-person telemarketing calls. The consultation and subsequent planned legislation incorporated two options analyzed and highlighted in Hui's research and public engagement, solutions that in the pending legislation will benefit consumers, the industry and its employees.

(2) Underpinning research

Prior research has assumed that consumers passively accept marketing promotions. Research by Professor Hui Kai-Lung, Chair Professor of Information Systems, Business Statistics and Operations Management (joined HKUST in September 2008) and his co-authors in Korea, Singapore and United States introduced a new concept called *marketing avoidance*, i.e. consumers' efforts to avoid marketing [See Section 3, R1]. In his analysis, direct marketing imposes a negative externality on consumers, who avoid marketing in two ways – *concealment* and *deflection*. Concealment reduces consumer exposure to sellers. Deflection causes promotions to be discarded. Real-life examples of concealment include opt-out schemes, such as do-not-call (DNC) registration, and using unlisted telephone numbers. Examples of deflection include filtering calls using caller-ID and removing online advertisements with pop-up blockers. Concealment causes sellers to shift marketing to other consumers who do not opt out. Deflection does not create such externalities as sellers do not know that the consumers have discarded the promotions.

The research by Hui, a renowned scholar in information privacy and security, analyzed the trade-offs between seller benefits, consumer benefits, sellers' promotional costs, consumer privacy, and the costs of marketing avoidance. By considering the strategic interaction between sellers and consumers and analyzing their decisions, Hui showed that regulation of direct marketing is necessary. He found that deflection always decreased the invasion of privacy suffered by consumers, but concealment could increase invasion of privacy for consumers who value the promoted products. Overall, efforts in deflection increased consumer welfare more than concealment.

The practical implication of Hui's research is that the government should regulate direct marketing, but common opt-out schemes, such as a do-not-call register, may not perform as well as a filtering scheme. This is an important finding as previous analysis of privacy and direct marketing had not considered the nuanced differences between different regulatory options. Hui's research provides specific guidance on choosing regulatory tools that balance the interests of direct marketers and consumers.

To substantiate these analytical insights, Hui and his collaborators conducted several large-scale studies involving empirical analysis based on the US's experience in implementing a do-not-

call register. These studies [R2, R3] showed that consumers decide whether and when to sign up for do-not-call depending on the availability and information about the registration channels. In a different setting, sellers promote to different groups of consumers strategically [R4]. Most importantly, do-not-call registration was found to create an externality on unregistered consumers, causing some of them to register because of the increased invasion of privacy from sellers' promotions [R5]. Hui's research thus provides the first large-scale empirical evidence, from more than 100 million redacted telephone numbers in the US do-not-call register, to support the use of a do-not-call register in sorting consumers and enhancing direct marketing efficiency; and to highlight its weakness, viz. that it increases the invasion of privacy for unregistered consumers.

This research, combining rigorous theoretical analysis and empirical evidence, points to a converging conclusion – opt-out services such as a do-not-call register, as informed by the US experience, help improve direct marketing efficiency by sorting consumers into different types, but may increase the invasion of privacy suffered by consumers who are otherwise interested in the promotions. Helping consumers deflect promotions, for example, by facilitating the use of filtering tools, may be a better solution.

(3) References to the research

[R1] Hann, I.H., K.L. Hui, T.S.Y. Lee, and I.P.L. Png “Consumer Privacy and Marketing Avoidance: A Static Model,” *Management Science*, vol. 54, no. 6, June 2008, 1094-1103.

[R2] Hui, K.L. and I.P.L. Png “Migration of Service to the Internet: Evidence from a Federal Natural Experiment,” *Information Systems Research*, vol. 26, no. 3, September 2015, 606-618.

[R3] Goh, K.Y., K.L. Hui, and I.P.L. Png “Newspaper Reports and Consumer Choice: Evidence from the Do Not Call Registry,” *Management Science*, vol. 57, no. 9, September 2011, 1640-1654.

[R4] Hann, I.H., K.L. Hui, Y.L. Lai, T.S.Y. Lee, and I.P.L. Png “Who Gets Spammed,” *Communications of the ACM*, 2006, vol. 49, no. 10, October 2006, 83-87.

[R5] Goh, K.Y., K.L. Hui, and I.P.L. Png “Privacy and Marketing Externalities: Evidence from Do Not Call,” *Management Science*, vol. 61, no. 12, December 2015, 2982-3000.

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(4) Details of the impact

Hui's research has had *societal impact* by generating public understanding of the potential solution to the growing problem of unsolicited telemarketing calls, and *impact on public policy* by informing public debate and proposed legislation currently being drawn up by government [See Section 5 for the government's 2017 Consultation Paper on the issue [S1], its 2018 report on the consultation [S2], and the progress of the legislation, as reported to the Legislative Council in June 2019 [S3].

Prior to the consultation, Hui contributed actively to the policy discussion through opinion articles and media interviews in newspapers, such as the *South China Morning Post* (two opinion articles, in April 2014 and August 2016 [S4 and S5], and during the consultation, for example, in the *Hong Kong Economic Journal* [S6].

Further impact on the policy debate was achieved through direct communications with professional organizations, notably with the Communications Association of Hong Kong, the lead industry body for the telecommunications sector, which relayed his insight directly to government. [Text removed for publication] affirmed that in 2015 Hui had introduced him to a more holistic approach to telemarketing regulation [text removed for publication].

The impact of his research and outreach was indicated in the subsequent development of telemarketing regulation in Hong Kong. In May 2017 the Commerce and Economic Development Bureau (CEDB) of the Hong Kong SAR Government launched a public consultation on regulating person-to-person telemarketing calls. It suggested three options, of which two align with Hui’s analysis and proposals, namely recommendations for “*Call-filtering Applications in Smartphones*” [S1, p16], and a “*Do-not-call Register*” [S1, p18].

During the consultation, the Office of the Privacy Commissioner for Personal Data (OPCPD), a statutory body regulating and enforcing consumer privacy protection in Hong Kong, submitted a response [S8] that adopted similar reasoning to that shared in Hui’s media engagement [S4, S6]. It welcomed the use of a do-not-call register that could increase the “*cost-effectiveness of telemarketing by screening out those customers who would not enter into any transactions at the end of day*” [S8, p10]. Hui’s media articles focused on this point were based on the only published research that analyzes this sorting benefit of a do-not-call register. Other OPCPD recommendations aligned with Hui’s suggestions, including assigning a specific telephone prefix to telemarketers [S8, p17] and setting up an accreditation or certification system for telemarketers, with OPCPD mindful that “*P2P telemarketing calls should be regulated without unduly compromising the economic contribution the telemarketing industry may make*”. Hui’s media outreach had previously drawn attention to the need to balance personal privacy and legitimate economic activity.

Subsequent to the public consultation, the Commerce and Economic Development Bureau published a report summarizing the feedback from the public. A number of individuals, trade associations/enterprises, political parties, and other organizations supported the use of a call-filtering smart phone app [S2, p8-10]. Many items of feedback supported assigning a specific telephone prefix to telemarketers and setting up a caller white-list – ideas previously suggested by Hui.

The Commerce and Economic Development Bureau eventually proposed to amend the Unsolicited Electronic Messages Ordinance [S3] and set up a statutory do-not-call register. Its reasoning was that the do-not-call register “*could indeed improve the efficiency of telemarketing P2P calls as a business promotion tool to focus on those interested to take P2P calls, and at the same time companies and SMEs could put resources in other more appealing marketing efforts for potential customers whose numbers are on the Do-not-call Register*” [S2, p8].

The government proposal also encouraged the use of smart phone apps to filter telemarketing calls [S2, p11]. These proposed actions, and the feedback from the public on using a specific telephone prefix for telemarketers and a telemarketer white list, are all supportive of a policy of improving the efficiency of direct marketing by combining the use of opt-out and filtering tools. This could in turn protect the industry and its workforce, estimated at 7,000 in Hong Kong and a survey indication of a further 1,000 in mainland China [S1]. Hui’s research, media sharing and public engagement [R1, R4, and S4, S5, S6] has helped inform this policy direction, being the only published research that tackles direct marketing in such detail, including explicit analysis of various regulatory options and their economic impacts. Industry, employees and the general public now stand to benefit under the planned legislation.

(5) Sources to corroborate the impact

[S1] Commerce and Economic Development Bureau, HKSAR Government. Strengthening the regulation of person-to-person telemarketing calls. 11 May, 2017.

http://www.cedb.gov.hk/ccib/eng/paper/pdf/Consultation%20Paper_E.pdf.

[S2] Commerce and Economic Development Bureau, HKSAR Government. Report on the public consultation on strengthening the regulation of person-to-person telemarketing calls, to the Legislative Council Panel on Information Technology and Broadcasting. 9 April 2018. LC Paper No. CB(4)835/17-18(03)

<https://www.legco.gov.hk/yr17-18/english/panels/itb/papers/itb20180409cb4-835-3-e.pdf>.

[S3] CEDB Press Release: LCQ11: Regulation of person-to-person telemarketing calls.
<https://www.cedb.gov.hk/ccib/eng/press/2019/pr26062019a.htm>.

[S4] “Marketers stand to benefit from curbs on cold calls,” *South China Morning Post*, 11 August 2014.

[S5] “Time for Hong Kong to stop the nuisance calls, to protect the public and the industry,” *South China Morning Post*, 14 April 2016.

[S6] “規管促銷來電 設電銷商登記冊,” (Translation: Regulate telemarketing calls, set up a telemarketer register) *Hong Kong Economic Journal*, 13 June 2017.

[S7] Letter. [Text removed for publication] Communications Association of Hong Kong, [On file]

[S8] PCPD’s Submission in response to the consultation on strengthening the regulation of person-to-person telemarketing calls. 10 July 2017.