

Graduate School of Global Information and Telecommunication Studies, Waseda University

A Summary of Doctoral Dissertation

The main title of Doctoral Dissertation

The Antecedents and Consequences of Handset
Upgrades and their Impact on Mobile Usage Behaviors

端末の買換え行動が携帯電話利用に及ぼす影響に関する実証的研究

By

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SUMMARY

As of early 2006, global mobile subscriptions surpassed 2.5 billion people, with the majority of new handset sales also shifting from first time purchases to upgrades. Yet while a robust body of literature has been generated across five distinct categories related to the mobile platform, surprisingly there is a dearth of research focused upon the role and impact that intentions, upgrade motivations and the technical capabilities that accompany the handset upgrade have upon post-upgrade usage. Additionally, there is a lack of research which proves that insights into mobile consumer behavior within the Japanese market can be applied globally.

The goal of this research effort then, was to gain a clearer understanding of the role that the antecedents and consequences of handset upgrades have upon post-upgrade usage of mobile content and services, while simultaneously determining if such findings developed within the Japanese mobile market could be applied internationally.

The three case studies presented in this thesis explore the antecedents and consequences of handset upgrades from distinctly different perspectives, including both quantitative and qualitative methodologies. First, case study 1 explored the loyalty relationship between consumers and their mobile network operator at the time of upgrade. Research results showed that while a significant segment of respondents exhibited the intention to switch network operators, and therefore modify their network relationship behaviors at the time of upgrade, the vast majority of those who intended to switch remained behaviorally loyal. This first case study therefore showed that while there was a strong stated intention to modify mobile platform usage behaviors, such intentions were not acted upon at the time of handset upgrade.

Case study 2 explored the relationship between mobile consumers and their content and service providers pre- and post-upgrade. Results from this study also showed that psychological motivations driving the handset upgrade as well as the many new technical capabilities of these new handsets exerted strong pressure upon consumers to change

behaviors after the handset upgrade, yet the actual impact of these factors on post-upgrade usage remained extremely low.

However, while these results provide valuable insights into mobile internet usage behaviors within the Japanese mobile market, there have been strong suggestions that the Japanese culture has been responsible for the far wider usage and adoption of the mobile internet in Japan than in other markets and regions. While such ideas have been heavily criticized, very little academic research has been conducted to disprove such strongly held beliefs. And if such accusations are true, then behavioral research conducted on mobile consumers in Japan will have very little significance in other markets. Therefore, case study 3 was undertaken to show that the results of the first two case studies can be applied outside of Japan. This study found no culturally-specific differences between the cognitive structures of mobile consumers in Japan and Indonesia, two countries that are considered extremely different in terms of culture and mobile technology.

These results combine to show that even though distinct and measurable psychological motivations and intentions precede the handset upgrade, post-upgrade behaviors remained relatively unchanged.

In achieving its objective, this paper makes four important contributions to the literature, including (1) the development of an empirical aggregate understanding of the impact of the antecedents and consequences of handset upgrades on mobile use. Specifically, these results show that upgrades serve as a critical time at which consumers do develop a clear set of motivations and intentions related to the upgrade itself, (2) proof that these intentions have little overall impact on actual usage behaviors such as network loyalty and content and service consumption. These results imply then that market intervention is required to address this issue, (3) proof that insights gained from mobile consumer research in Japan can be applied in most all of the markets typically used to compare with Japan, and (4) a foundation for further researchers to use to further explore the handset upgrade and its impact on overall mobile consumer behavior.

In addition to these contributions, the preceding case studies were also found to hold important insights for academics, government agencies, managers and end-users within the mobile and wireless industry.

Most important from these implications is the fact that the market structure within which mobile consumer behavior occurs has been identified as holding significant importance in the ability for consumers to act upon their initial intentions and motivations to upgrade. Further academic and business research into this area, with the goal of identifying the most optimal market models will provide significant benefits to mobile consumers globally, and is therefore considered the most important outcome of this entire research effort.

As the world marches towards its 3 billionth mobile subscriber, the opportunities and benefits inherent in such widespread adoption of mobile and wireless technologies are significant. The contributions and insights discussed throughout this thesis are intended to provide a consolidated body of knowledge upon which further academic inquiry and theoretical concepts can be developed, helping to promote the creation and implementation of more inclusive and more effective mobile solutions in Japan and throughout the world.

LIST OF ACADEMIC ACHIEVEMENTS

Refereed Papers	<p>○ <i>Exploring the Impact of Handset Upgrades on Mobile Content and Service Usage</i>, International Journal of Mobile Communications (Accepted, to be published within the 2006 calendar year).</p> <p>○ <i>Mapping the mind of the mobile consumer across borders; an application of the Zaltman Metaphor Elicitation Technique</i>, International Marketing Review, 22(6), pp. 641–657, 2005.</p> <p>○ <i>Segmenting and predicting consumer network loyalty behaviors within Japan's mobile market</i>, published in the Waseda GITS/GITI Research Bulletin 2004–2005, pp. 165–171.</p>
Lectures	<p>a. <i>Mapping the Mind of the Mobile Consumer Across Borders</i>, 2006 Cultural Perspectives in Marketing Conference, Academy of Marketing Science & Korean Academy of Marketing Science, Seoul, Korea, July 12–15 2006 (forthcoming)</p> <p>b. <i>Key Insights into the 'Ubiquitous' Consumer</i>, The Fixed Mobile Convergence Forum, Tokyo, Japan, February 22nd.</p> <p>c. <i>The role of habit, intentions and vicarious consumption in mobile internet subscription behaviors of Japanese consumers</i>, proceedings of the 19th Pacific Regional Science Conference, College of Economics, Nihon University, Tokyo Japan, July 25–28.</p> <p>d. <i>Mobility and its Impact on Consumer Behavior</i>, The Plenary Session of the Fixed Mobile Convergence Alliance, Tokyo, Japan, July 7th.</p> <p>e. <i>The Influence of Attitudes and Normative Factors on MobileNet Usage and Upgrade Intentions</i>, Conference proceedings of the 6th Annual Global Information Technology Management (GITM) World Conference, Anchorage, Alaska, June 5–8, 2005.</p> <p>f. Sugai, Philip, Sukanya Janmongnorawut, Masakiyo Miyake and Norio Imai (2005), <i>Xavel's New Model of mCommerce; The Keitai Media Matrix</i>, Conference proceedings of the 6th Annual Global Information Technology Management (GITM) World Conference, Anchorage, Alaska, June 5–8, 2005.</p> <p>g. <i>Towards a Theory of Mobile Consumer Behavior</i>, The Mobile Intelligence Tour, Tokyo, Japan, October 8th, 2004</p>

Others	<ul style="list-style-type: none"> <li>h. <i>Comparing Mobile Cultures, The Mobile Internet and its Images in Japan, China and Indonesia</i>, The Mobile Intelligence Tour, April 12, 2004, Tokyo, Japan <li>i. <i>Japan's Mobile Consumers</i>, Japan Mobile Goes Global, Wireless Watch Japan Teleseminar, February 5, 2004 <li>a. (Paper) <i>Walt Disney Internet Group Japan's Dimo Project</i>, Richard Ivey Business School Publishing, The University of Western Ontario; Ontario, Canada. <li>b. (Article) <i>Mobile TV: Hype or Reality?</i> Wireless Watch Japan, September 8. <li>c. (Article) <i>Anytime, anywhere, and little relief in sight</i>, Marketing News, Vol. 38, Issue 13, August 15, p. 13-14. <li>d. (Patent) Sugai, Philip, Hiroshi Nakagawa, Sukanya Janmongnorawut, Patent Application # 2004-316170. Filed November 2, 2004. Developed the technology and business model for allowing collaborative, interactive TV-viewing and simultaneous chatting.
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