

# Chapter IX

## Key Attributes and the Use of Advanced Mobile Services: Lessons Learned from a Field Study

**Jennifer Blechar**

*University of Oslo, Norway*

**Ioanna D. Constantiou**

*Copenhagen Business School, Denmark*

**Jan Damsgaard**

*Copenhagen Business School, Denmark*

### ABSTRACT

*Advanced mobile service use and adoption remains low in most of the Western world despite impressive technological developments. Much effort has thus been placed on better understanding the behavior of advanced mobile service users. Previous research efforts have identified several key attributes deemed to provide indications of the behavior of consumers in the m-services market. This chapter continues with this line of research by further exploring these key attributes of new mobile services. Through a field study of new mobile service use by 36 Danish mobile phone users, this chapter illustrates the manner in which users' perceptions related to the key attributes of service quality, content-device fit and personalization were adversely affected after approximately three months of trial of the services offered.*

### INTRODUCTION

Investments in mobile multimedia technologies and services continue to increase. Yet, as has been illustrated in the past, market success does not always follow positive technological

gains (Baldi & Thaung, 2002; Funk, 2001). For example, even though the quality and proliferation of mobile phones with photographing capabilities remains on the rise, adoption and use of mobile multimedia messaging services (MMS) continues to dwindle among mobile phone users

in Western countries. As investments in mobile applications and services continue, it thus becomes increasingly important to better understand the process whereby users either accept or reject the use of new technology in the mobile arena.

Much research effort has been undertaken on the study of technology acceptance and use over the last two decades. Of primary concern in many existing models and theories related to technology acceptance, such as the diffusion of innovations theory (Rogers, 1983), the technology acceptance model (TAM) (Davis, 1989) and the theory of reasoned action (TRA) (Ajzen & Fishbein, 1980), is the identification of specific elements or factors which are seen to impact individuals' or aggregate group intentions to adopt and use a new technology. As research on the acceptance and use of new multimedia technologies has progressed, emphasis has also been placed on the identification of key attributes deemed to drive consumer behavior related to m-service actions (see Vrechopoulos, Constantiou, Mylonopoulos, & Sideris, 2002)

Through a field study of new mobile service use by 36 Danish mobile phone users, this chapter illustrates the manner in which users' perceptions of some key attributes of new mobile services offered has changed after approximately three months of use. These key attributes have been found to relate to the actual behavior of consumers in the m-service market (Vrechopoulos et al., 2002). In this study we obtain a better understanding of how users' perceptions of these attributes may change during initial technology trial thus providing a more rounded picture of the m-services market. In addition, increased knowledge regarding user perceptions of key m-service attributes offers useful insights related to the manner in which new mobile services should be released and promoted to consumers in the

market. The next section of this chapter includes background information on the key attributes and existing related research in the m-service arena. This is followed by an introduction to the field study and a discussion of the results. The conclusions are then presented, summarizing the main findings of this chapter.

## **LITERATURE INSIGHTS**

Many studies have been conducted in various settings in order to investigate the use and uptake of new technology including advanced mobile services. This includes studies rooted in the domains of technology acceptance (Ajzen, 1985, 1991; Davis, 1989; Taylor & Todd, 1995; Venkatesh, Morris, Davis, & Davis, 2003), diffusion of innovations (Rogers, 1995), Domestication (Ling & Haddon, 2001; Pedersen & Ling, 2003; Silverstone & Haddon, 1996), and various studies conducted from the industry perspective (Sharma & Nakamura, 2004). Several perspectives have thus been proposed related to the factors or elements influencing successful adoption of new technologies, ranging from perceptions of technological characteristics such as *ease of use* or *perceived usefulness* (e.g., Davis, 1989), to social factors such as age or gender (e.g., Ling, 2004).

Through the work of Vrechopoulos, Constantiou, Sideris, Doukidis, and Mylonopoulos, (2003) key attributes influencing consumers behavior related to the acceptance and use of new mobile services have been identified. The attributes that were found to be the most significant influences for consumer behavior included:

- Ease of use interface
- Security
- Service quality
- Price

7 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:

[www.igi-global.com/chapter/key-attributes-use-advanced-mobile/20961](http://www.igi-global.com/chapter/key-attributes-use-advanced-mobile/20961)

## Related Content

---

### Autonomous Specialization in a Multi-Robot System using Evolving Neural Networks

Masanori Goka and Kazuhiro Ohkura (2011). *Gaming and Simulations: Concepts, Methodologies, Tools and Applications* (pp. 941-955).

[www.irma-international.org/chapter/autonomous-specialization-multi-robot-system/49428](http://www.irma-international.org/chapter/autonomous-specialization-multi-robot-system/49428)

### Comparison of Light Field and Conventional Near-Eye AR Displays in Virtual-Real Integration Efficiency

Wei-An Teng, Su-Ling Yeh and Homer H. Chen (2023). *International Journal of Multimedia Data Engineering and Management* (pp. 1-17).

[www.irma-international.org/article/comparison-of-light-field-and-conventional-near-eye-ar-displays-in-virtual-real-integration-efficiency/333609](http://www.irma-international.org/article/comparison-of-light-field-and-conventional-near-eye-ar-displays-in-virtual-real-integration-efficiency/333609)

### Utilizing Context Information to Enhance Content-Based Image Classification

Qiusha Zhu, Lin Lin, Mei-Ling Shyu and Dianting Liu (2011). *International Journal of Multimedia Data Engineering and Management* (pp. 34-51).

[www.irma-international.org/article/utilizing-context-information-enhance-content/58050](http://www.irma-international.org/article/utilizing-context-information-enhance-content/58050)

### Motion Estimation Role in the Context of 3D Video

Vania Vieira Estrela, Maria Aparecida de Jesus, Jenice Aroma, Kumudha Raimond, Sandro R. Fernandes, Nikolaos Andreopoulos, Edwiges G. H. Grata, Andrey Terziev, Ricardo Tadeu Lopes and Anand Deshpande (2021). *International Journal of Multimedia Data Engineering and Management* (pp. 16-38).

[www.irma-international.org/article/motion-estimation-role-in-the-context-of-3d-video/291556](http://www.irma-international.org/article/motion-estimation-role-in-the-context-of-3d-video/291556)

### Adaptive Acquisition and Visualization of Point Cloud Using Airborne LIDAR and Game Engine

Chengxuan Huang, Evan Brock, Dalei Wu and Yu Liang (2023). *International Journal of Multimedia Data Engineering and Management* (pp. 1-23).

[www.irma-international.org/article/adaptive-acquisition-and-visualization-of-point-cloud-using-airborne-lidar-and-game-engine/332881](http://www.irma-international.org/article/adaptive-acquisition-and-visualization-of-point-cloud-using-airborne-lidar-and-game-engine/332881)