Electronic Payment Systems for Competitive Advantage in E–Commerce

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This chapter explores the impact of the Internet and Business to Business (B2B) e-commerce on Spanish manufacturing firms’ market share while most studies focus on innovation and productivity. Using standard panel estimations, the authors find that firms with their own Web domain and that also carry out B2B e-commerce increase their market share, though this effect is not homogeneous among industries. B2B e-purchases have a more significant (and positive effect) on firms’ market share than B2B e-sales have. Unlike other studies, the authors also use a panel threshold regression specification that shows that e-commerce affects market share in a non-linear manner depending on firm’s characteristics. Larger firms and firms with higher share of skilled workers are better at increasing their market shares through Internet-based commerce strategies than other firms.

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Enrique Bernal Jurado, University of Jaen, Spain
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Miguel J. Medina Viruel, University of Jaen, Spain

The Spanish market for organic products is notable for a supply side that offers one of the largest ranges in the world and a demand side that can only be termed symbolic. The reasons that have been given for this situation include the few and scattered points of sale, higher prices than for the conventional equivalents, and the consumers’ disinformation about this product range. The Internet offers solutions to these barriers that some companies have used to facilitate online transactions in organic products. The case study presented in this chapter focuses on examining a virtual platform managed by an intermediary, not a producer, which puts producers and consumers of organic products in direct contact with each
other. Making use of the Internet’s advantages as a sales channel, developing a differentiation strategy based on promoting values such as the environment and sustainability, and the company’s mutualist relationship with its small-scale suppliers have generated an associate and customer base that ensures the success of this business model.

Chapter 3
How to Develop WOM Marketing

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Word of Mouth (WOM) is the most influential and credible information source for consumers. The development of the Internet has enabled consumers to share information easier and easier. Information can be watched by consumers around the world. Companies are increasingly interested in using WOM as a new marketing tool. They are encouraging consumers to spread the word about their products. This intentional influencing of consumer-to-consumer communications via professional marketing techniques is called WOM Marketing (WOMM). Companies are currently in the process of learning how to develop WOMM campaigns. In addition, although more and more studies are analyzing WOMM, the topic is still very recent. Thus, the aim of this chapter is twofold. First, it tries to provide a clearer picture of and existing doubts regarding conceptualization of this new communication tool. Second, the chapter compiles and presents the main gaps found in the literature that future research should investigate for establishing guidelines that could be useful for companies when developing WOMM activities.

Section 2
Modelling of Users’ Behaviour towards New Electronic Environments

Chapter 4
New Market Segmentation Paradigms and Electronic Commerce Adoption: An Exploratory Study
Ángel F. Agudo-Peregrina, Technical University of Madrid, Spain
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The purpose of this chapter is to offer a better understanding of online shoppers’ behaviour, so that virtual shops may improve and adapt their product offering to effectively reach their target segments. In order to achieve this goal, a characterization of motivations to shop online is proposed as a basis for motivation-based customer segmentation. Building upon this segmentation, acceptance models—namely, an adaptation of UTAUT2 to e-commerce—have been used to look further into the purchasing behavior of each identified segment. The results from the empirical study based on responses to an online questionnaire from a sample of 718 Spanish shoppers shows seven different groups of motivations and five different customer segments, and confirms different behavioral patterns in the adoption of e-commerce for different segments of customers, with special influence of effort expectancy, facilitating conditions, and perceived risk in the online shopping behaviour of individuals.

Chapter 5
How Can E-Vendors Create Trust in B2C and C2C Contexts?
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Carmen Camarero, University of Valladolid, Spain

One of the most important and the most difficult challenges in the context of an online as opposed to an offline purchase is how to generate consumer trust. It is likely that the signals that generate trust will differ in online C2C auctions from online B2C purchasing through other Websites. This chapter
follows signaling theory and presents a model that attempts to capture the effects of Website signals and perceived risk on consumer trust and draws comparisons between C2C and B2C online contexts using multigroup analysis. Using information collected from a sample of online buyers, results show that vendors should stress the quality of information given to the client on C2C Websites, the offer of a wide variety of competitive prices, and the guarantee of meeting deadlines, whereas in the case of B2C sites there seem to be a series of factors that create trust in a balanced way.

Chapter 6
Perceived Risk in E-Commerce and the Development of Loyalty: The Moderating Effect of Website Design, the Cultural Framework of Language, and the User’s Flow State

Juan Miguel Alcántara-Pilar, University of Granada, Spain
Salvador del Barrio-García, University of Granada, Spain

This chapter examines the effect of Website design, the language used on the Website, and the user’s flow state while browsing on processing online information in terms of perceived security and loyalty towards the tourism service being promoted. The results underline the importance of Website design and language on perceived risk online, and of user flow state on the development of loyalty towards the tourist destination in question. It was found that user involvement with the site content is a key moderator in reducing perceived risk and increasing loyalty. In light of the findings, firms are recommended to select content for their Websites that reflect the different types of client motivation so as to make browsing more useful and appealing to users.

Chapter 7
The Relationship Between E-WOM from SNS or Internet and Purchase

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The main proposal of this chapter is to analyze the influence of eWOM and Internet referrals across different product types, including gender as a moderator variable. In addition, some sub-objectives that drive to the main one are the following: 1) to analyze how important are the recommendations for the buying process, in the Internet and in SNS; 2) to study the gender effect on the importance of recommendations for the buying process; and 3) to examine the role of product types in the relationship between eWOM and purchase. Results pointed out that, in general, consumers prefer recommendations collected from the Internet to those picked up from their friends in SNS, but gender moderates the importance of SNS and Internet recommendations. In addition, the percentage of online purchase is significantly higher for men than for women.

Chapter 8
Gender Differences in the Technology’s Classic Models in Social Network Sites

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Social Network Sites (SNS) have very rapidly become part of the daily reality of Internet users in recent years. Firms also use social networks as a two-way communication with their current and potential customers. This exploratory work means to analyze if Internet users’ gender influences the behavior of using social networks. There is a reason for this. Despite Information and Communication Technologies (ICT) acceptance and use being more frequent in men, according to the previous literature, in line
with different surveys on the subject, social networks are more used by women. The authors, therefore, analyze in this chapter if there are gender differences in the constructs of technology's classic models, such as the TAM (Technology Acceptance Model) and the TPB (Theory of Planned Behavior). They use a sample of 1,460 university students.

**Chapter 9**

Drop-Out Risk Measurement of E-Banking Customers .......................................................... 143

Juan Lara-Rubio, University of Granada, Spain  
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Antonio M. Cortés-Romero, University of Granada, Spain

During the last decade, the national financial markets have shown a great transformation that has failed to reduce the high rate of existing banking in spite of the current financial crisis. This high level of competition makes financial institutions concerned about the loyalty of their customers to maintain or increase their market share and profitability. In this chapter, the authors propose a statistical model that measures the risk of customers dropping out of a Spanish financial institution, and this is a widespread method for the financial sector in general. The risk depends on socio-demographic and economic factors, as well as—most importantly—on the levels of satisfaction and trust that the bank produces in customers. Research shows that the proposed model can help institutions to know which customers have a greater risk of dropping out and, therefore, establish some recommendations for their loyalty.

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Mobile Banking: Challenges and Opportunities for the Financial Sector ................................ 164

Raquel Arguedas, National University of Distance Education (UNED), Spain  
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For over a decade, financial institutions, driven by advances in Information and Communication Technology (ICT), have been shifting to a new business model that prioritizes new channels for managing customer relationships. These new channels, which are based on the Internet and mobile devices, offer major business and growth opportunities. This chapter looks at the current status of online and mobile banking in Spain from the perspective of both financial institutions and users and compares it to the situation in Europe at large. Following an analysis, it draws a number of conclusions regarding the future prospects of these channels and the areas offering the greatest potential for growth and profitability.

**Chapter 11**

Overview of Mobile Payment: Technologies and Security ................................................... 186

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According to the Mobile Payment Forum, mobile payments are the transactions with a monetary value that is conducted through a mobile telecommunications network through diverse mobile users devices, such as cellular telephones, smart phones or PDAs, and mobile terminals. Mobile payment is a transfer of funds in return for goods or services in which a mobile device is functionally involved in executing and confirming payment. The payer can be standing at a POS or be interacting with a merchant located somewhere else. Mobile payment systems enable customers to purchase and pay for goods or services
via mobile phones. Here, each mobile phone is used as the personal payment tool in connection with the remote sales. Payments can take place far away from both the recipient and the bank. This chapter gives an overview of mobile payments.

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Over the last few years, the payment systems used in business activities have been altered by recent technological developments. Increasingly, more consumers use their mobile phones to do their purchases. Currently, sales through smartphones are an indicator of the growth potential that these new trade and payment methods have in the future society. In this chapter, the authors carry out a theoretical review of the different payment systems, from the most traditional ones to the new payment systems used on the Internet. They also analyze the different security protocols that are currently operational, with the aim of improving consumers’ trust. In this literature review, the authors extract a few implications and recommendations to management of M-Payment-based businesses.

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New Perspectives on Payment Systems: Near Field Communication (NFC) Payments through Mobile Phones ................................................................. 260
Iviane Ramos de Luna, The Capes Foundation, Ministry of Education of Brazil
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The technological developments in the mobile industry during the last few years have led companies to increase the functionalities of mobile phones. According to many authors in the field, the NFC mobile payment has become one of the payment systems of the future thanks to its numerous advantages. This chapter revises the importance of this payment system within the mobile commerce strategy that many companies are adopting. The model used in the research is based on the classic variables of the technological acceptance model, together with other variables from recent studies. The results obtained in this research show the decisive impact of perceived compatibility, attitude, and subjective norms on the future intention to use this system. Finally, the authors underline the main implications for management, as well as some strategies that strengthen this new business in the context of the new technical developments.

Chapter 14
Emerging Technologies for User-Friendly Mobile Payment Applications .................................. 279
Vibha Kaw Raina, Birla Institute of Technology, India

The advancement and the evolution of mobile communications and mobile device technology have led to a remarkable growth and tremendous requirement for mobile applications that are carried on mobile phones. These technologies have lead to the deployment of business, communications, and mobile services, and hence, gave rise to mobile payments. The mobile payments are considered as the killer applications and are real-time cashless payments. Mobile payments take place with the help of mobile telephony and communications where maintaining security solutions becomes an important factor. This chapter describes the different emerging technologies carried out between a resource-limited mobile device and a resource-rich computer server over wireless networks.
Mobile phones have become substantially more popular and sophisticated as African consumers have become remarkably comfortable with their use. This chapter shows the impact of the growing adoption of mobile payments as a financial transaction medium for money transfer, retail payments, or micropayments in Africa. Adoption was slow due to the nature of the mobile technology supporting the concept. The author shows how these innovations will continue to improve the quality of life of Africans, especially those in rural areas. He presents M-Pesa as a mobile payment system, which has had great success in Kenya. The author identifies the fundamental principles of success; thus, this enables the author to create an ECOPAY platform, which is an innovative mobile payment platform for emerging markets. The platform provides different types of m-payment like as B2C, B2B, or P2P using the mobile phone or others devices. Each transaction is secure by using encrypted messages and encrypted connections between the devices and the ECOPAY servers. The solution is based on the social and technological environment in developing countries.