

# **El comportamiento de los consumidores ante los cambios en las industrias de red: el caso de las telecomunicaciones y servicios móviles**

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## **Abstract**

Chapter 1. We propose and test an integrative model to examine the relationships among service quality, perceived value, corporate image, customer satisfaction and loyalty with mobile communication services. The moderating role of sector knowledge and type of subscription contract were also examined. The data was analyzed through Structural Equation Modeling, and results showed that service quality exerts the highest influence on customer satisfaction, followed by perceived value and corporate image.

Chapter 2. This article provides a conceptual model to analyze the creation of customer satisfaction and switching intention with mobile services, and to examine the differences according to the type of subscription contract. Our findings suggest that service quality is one of the key determinants of customer satisfaction, while the attractive alternatives are the main switching barrier.

Chapter 3. Based on the flow theory, we develop and test a model on the creation and consequences derived from consumer satisfaction with digital content through mobile devices. For this purpose, we developed Structural Equation Modeling analysis. This study found that the ease of use is one of the key determinants of consumer satisfaction, followed by content characteristics.

## **Resumen**

El capítulo 1 propone y prueba un modelo integral para examinar las relaciones existentes entre la calidad del servicio, el valor percibido, la imagen corporativa, la satisfacción del consumidor y la lealtad en los servicios de comunicación móvil. El papel moderador del conocimiento del sector y del tipo de contrato también se analizan. Los datos se analizan mediante un modelo de ecuaciones estructurales, y los resultados muestran que la calidad del servicio ejerce la mayor influencia en la satisfacción del consumidor, seguida del valor percibido y de la imagen corporativa.

El capítulo 2 ofrece un modelo conceptual para analizar la creación de la satisfacción del consumidor y la intención de cambio en los servicios de comunicación móvil, y para examinar las diferencias dependiendo del tipo de contrato. Nuestros resultados

sugieren que la calidad del servicio es uno de los factores determinantes de la satisfacción del consumidor, mientras que el atractivo de las alternativas es la principal barrera de entrada.

El capítulo 3 se basa en la teoría del flujo. Se desarrolló y se prueba un modelo sobre la creación y las consecuencias derivadas de la satisfacción de los consumidores con los contenidos digitales a través del móvil. Para este propósito, desarrollamos un análisis mediante un modelo de ecuaciones estructurales. Este estudio muestra que la satisfacción de los usuarios está influida por la facilidad de uso, seguida por las características del contenido.

## **Resumo**

O capítulo 1 propón un modelo integral para examinar as relacións existentes entre a calidade do servizo, o valor percibido, a imaxe corporativa, a satisfacción do consumidor e a lealtade nos servizos de comunicación móbil. O papel moderador do coñecemento do sector e o tipo de contrato tamén se analizan. Os datos se analizan mediante un modelo de ecuacións estruturais, e os resultados amosan que a calidade do servizo exercen a maior influencia na satisfacción do consumidor, seguida do valor percibido e da imaxe corporativa.

O capítulo 2 ofrece un modelo conceptual para analizar a creación da satisfacción do consumidor e a intención de cambio nos servizos de comunicación móbil, e para examinar as diferenzas dependendo do tipo de contrato. Os nosos resultados están a suxerir que a calidade do servizo é un dos factores determinantes da satisfacción do consumidor, mentres que o atractivo das alternativas é a principal barreira de entrada.

O capítulo 3 se basa na teoría do fluxo. Se desenvolve e se proba un modelo sobre a creación e as consecuencias derivadas da satisfacción dos consumidores cos contenidos dixitais a través do móbil. Para este propósito, desenrola unha análise mediante un modelo de ecuacións estruturais. Este estudio amosa que a satisfacción dos usuarios está influida pola facilidade de uso, seguida polas características do contido.

## Prólogo

### P.1. Motivación y planteamiento de la tesis

La idea de esta tesis surge a raíz de una doble motivación. Por un lado la creciente relevancia que está alcanzando el mercado de las telecomunicaciones, y más concretamente el sector de las empresas de servicios de comunicación móvil, el cual ha experimentado un espectacular crecimiento en los últimos 20 años, y la creciente competencia que se desarrolla en este ámbito, en el cual asistimos a un escenario absolutamente novedoso en el que se desarrollan estrategias competitivas muy agresivas. Baste como ejemplo señalar que resulta muy difícil encontrar otro sector en el que el proveedor del servicio equie gratuitamente al usuario para que pueda disfrutar del servicio contratado, como por ejemplo con la entrega al cliente de un *smartphone* o teléfono móvil inteligente. Además se trata de un sector con una competencia claramente regulada, y sin embargo muy dinámica, que tiende a aproximar las cuotas de mercado de los principales competidores del mercado español -Movistar, Orange, Vodafone y Yoigo-, mientras que, paradójicamente, contribuyen a distribuir entre los usuarios unos servicios de internet cuyos proveedores están agrupados de forma monopolista -Facebook, EBay o Google-.

Si la construcción de una infraestructura de Red para un operador de servicios de telecomunicaciones supone la asunción de grandes costes fijos hundidos, manteniendo unos costes variables operativos relativamente muy bajos, la actual convergencia de servicios -entendiendo por convergencia las mejoras tecnológicas que permiten que sobre una única red se puedan ofrecer diferentes servicios, así como que un servicio se pueda proveer sobre diferentes tipos de redes-, plantea un nuevo escenario en el que redes y servicios de comunicaciones comienzan a transformarse de modo que, diferentes plataformas de red soportan servicios similares de voz, audiovisual y transmisión de datos, a la vez que diferentes terminales de usuario reciben servicios similares y se crean nuevos servicios a medida de los consumidores. Es obvio que esta dinámica del mercado beneficia a los usuarios de telefonía móvil, que se benefician de esta *guerra* entre operadores por ofrecer los mejores terminales con las tarifas más económicas, pero también lo es que esta dinámica lleva a los operadores a competir con menores márgenes.

Además de las cuestiones señaladas, la segunda motivación por la que he querido llevar a cabo la presente tesis, es porque se trata de una investigación donde aportar mis conocimientos profesionales sobre este sector, puesto que casi toda mi experiencia profesional la he desarrollado dentro del sector de las telecomunicaciones. Concretamente, he trabajado como analista de planificación y marketing desde el año 2004 en una de las compañías de telefonía móvil con mayor presencia en el mercado español. Mi experiencia de trabajo me permite conocer muy bien el funcionamiento y dinámica del sector de las telecomunicaciones, así como sobre el conocimiento de los mecanismos internos de toma de decisiones de marketing.

La experiencia investigadora de mis directores de tesis me ofreció una visión muy clara de los problemas a investigar, los arriba citados, así como el énfasis que debíamos poner en el análisis desde el punto de vista del consumidor o usuario de estos servicios de comunicación, dado la creciente importancia del sector, y la escasez de estudios realizados sobre el mercado español, a pesar de que se trata de un tema que afecta a las estrategias de marketing seguidas por las empresas proveedoras de telefonía móvil. Así, el presente trabajo de investigación tiene por objetivo profundizar en el conocimiento del comportamiento del usuario de servicios de comunicación móvil. Por tanto, sobre la base de esta experiencia y capacidad investigadora, y de mis conocimientos y experiencia en el sector, se comenzó en el bienio de doctorado 2012-2014 este proyecto de investigación, para finalizarlo en el año 2015.

## **P.2. El enfoque metodológico**

Para dar una respuesta al objetivo al que me he referido anteriormente, he estudiado y revisado un importante número de estudios académicos de naturaleza cuantitativa, fundamentalmente realizados en otras naciones y entornos diferentes al del mercado español, pero prestando una especial atención a aquellos países que por sus similitudes culturales pudieran asemejarse más a nuestro caso, pues una de las conclusiones señaladas en dichos estudios consiste precisamente en las diferencias de comportamiento del consumidor o usuario de servicios de comunicación móvil en función de la cultura propia de cada país.



En el primer artículo de investigación, siguiendo las orientaciones de mis directores, se exploraron las relaciones existentes entre el valor percibido de los servicios móviles, la calidad de estos servicios, la imagen corporativa de las empresas del sector, la satisfacción de los usuarios de estos servicios, y su lealtad hacia estas compañías. Además de proponer un modelo conceptual y comprobarlo empíricamente, se trató de analizar la función que desempeña el conocimiento del sector por parte del usuario, así como el tipo de contrato –distinguiendo entre contratos con compromiso de permanencia y contratos sin compromiso de permanencia-, proponiendo una función moderadora para ambas variables.

En el segundo estudio analizamos el comportamiento del usuario de servicios de comunicación móvil, examinando tanto la creación de satisfacción en el usuario, como su intención de cambio. En este segundo estudio se planteó el profundizar en el tipo de contrato que tiene el usuario, una vez comprobado en el primer estudio su función moderadora. Por tanto, se lleva a cabo un estudio comparativo de la generación de satisfacción y de la intención de cambiar de compañía, distinguiendo entre aquellos usuarios que tienen un contrato con compromiso de permanencia, y aquellos que no tienen dicho compromiso, y por lo tanto con libertad para cambiar de operador cuando lo deseen. En este segundo estudio, nos interesa analizar si el comportamiento del usuario es el mismo cuando existe libertad para cambiar de operador y cuando el usuario está *atado* por un contrato que le penaliza en caso de finalización.

Finalmente, en el tercer artículo plantea examinar cómo es el consumo de contenidos a través de los dispositivos móviles, para evaluar qué variables generan la satisfacción de los usuarios, así como las consecuencias que se derivan de esta satisfacción con un contenido, como por ejemplo el *“engagement”*, la implicación con el contenido, la lealtad, el *“boca a boca”* positivo, e incluso la interacción.

Para realizar estos tres estudios se procedió a recoger información de usuarios residentes en Galicia, mediante cuestionario estructurado auto-administrado. En concreto se emplearon dos cuestionarios, uno para los dos primeros estudios, y otro para el tercero. Posteriormente, esta información fue codificada y analizada mediante empleando modelos de ecuaciones estructurales (Structural Equation Modeling), que permite un análisis de la estructura de covarianzas. Se debe destacar que se obtuvo

una información muy valiosa sobre el comportamiento de los usuarios de servicios de comunicación móvil. Finalmente, es de destacar que los resultados obtenidos en los tres estudios contribuyen a profundizar y a mejorar el conocimiento en el área, dado que existen escasos estudios académicos sobre el comportamiento de los usuarios de servicios móviles realizados en España, y menos aún sobre el papel desempeñado por el tipo de contrato o sobre el conocimiento del sector, o sobre la creación de satisfacción en el uso de contenidos a través del móvil y sus consecuencias.

### **P.3. Problemas de investigación y estructura general de la tesis**

El sector de las telecomunicaciones y los servicios de comunicación móvil es un sector maduro en España, así como extremadamente competitivo. Como cambios más significativos en este sector destacan la portabilidad de los números de móvil impuesta por la UE, así como la entrada de operadores *móviles virtuales*, que han entrado a competir en este sector ofreciendo servicios básicos y precios bajos, lo que ha llevado al incremento creciente de su cuota de mercado. En este contexto, hemos identificado tres cuestiones de investigación, para lo cual la presente tesis se ha estructurado en tres partes –tres artículos de investigación–, cada uno de ellos enfocado hacia un análisis distinto. Los estudios realizados giran en torno a una temática concreta, como es el comportamiento de los consumidores en el sector de los servicios de comunicación móvil, examinando esta problemática desde diferentes perspectivas, para profundizar en el conocimiento del consumo en este sector maduro y muy competitivo en España.

En el primer y segundo ensayo se analizan las variables que generan la satisfacción del usuario con estos servicios, la creación de lealtad hacia las empresas proveedoras, así como aquellas variables que generan una intención de cambio de empresa proveedora de servicios. En el primer artículo se analizan de forma conjunta a todos los usuarios de servicios de comunicación móvil, sin distinguir entre clientes de operadores de red –los denominados *operadores tradicionales*–, y los clientes de *operadores virtuales*, o sin diferenciar entre los clientes con contrato de permanencia y los clientes sin permanencia, para comprobar empíricamente un modelo conceptual que incluye variables como la calidad del servicio, su valor percibido, la imagen corporativa, la

satisfacción y la lealtad. En este primer artículo se examinan las hipótesis del tipo de contrato y el conocimiento del sector de las comunicaciones como variables moderadoras.

Partiendo de los resultados obtenidos en el primer trabajo, es decir, que el tipo de contrato suscrito con las empresas de comunicación móvil sí es una variable moderadora, nos planteamos profundizar en este aspecto, para examinar si la satisfacción con el proveedor de servicios móviles y la intención de cambiar de proveedor es diferente según el tipo de contrato suscrito. Es decir, en el segundo artículo nos planteamos: ¿realmente importa el tipo de contrato suscrito con el proveedor de servicios móviles? ¿es importante tener un contrato con compromiso de permanencia o un contrato libre a la hora de estar satisfecho o la hora de tener la intención de cambiar de operador?.

En el tercer ensayo nos centraremos en examinar el contenido que se consume a través de los dispositivos móviles. En un entorno en el que los *smartphones* –o teléfonos inteligentes con conexión a internet- permiten ver y disfrutar una gran variedad de contenidos, nos planteamos qué factores hacen que los usuarios estén satisfechos con un contenido, analizando variables como las propias características de dicho contenido, el acceso gratuito a éste, es decir, que se pueda ver o descargar sin coste económico alguno, o incluso la facilidad de ver y descargar el contenido; así como las consecuencias que se derivan de la satisfacción en el uso de un contenido a través de cualquier dispositivo móvil. Por tanto, este tercer artículo analiza las variables que afectan a la satisfacción del usuario en su consumo de contenidos digitales, un negocio en el que actualmente se están volcando las empresas de telecomunicaciones, en búsqueda de la rentabilidad perdida en el mercado de llamadas de voz, representado los contenidos digitales y su consumo una excelente oportunidad de crecimiento para las empresas del sector. Por ello, creemos que es necesario hacer un análisis profundo de lo que está ocurriendo en el sector de las telecomunicaciones y servicios de comunicación móvil, para dar una respuesta a las oportunidades que existen en este entorno.

#### **P.4. Síntesis de los artículos realizados**

##### **P.4.1. Primer artículo: “Customer Satisfaction and Loyalty in Mobile Services: The role of Sector Knowledge and type of contract”.**

En este primer estudio, se recogieron un total de 370 encuestas, mediante un muestreo aleatorio, y mediante un cuestionario estructurado auto-administrado. Se recogió información de las principales empresas del sector –Movistar, Vodafone, Orange, Yoigo, Másmovil, R, Simyo, Pepephone, etc.-. Esta información se empleó para probar el modelo conceptual propuesto, empleando la metodología de un modelo de ecuaciones estructurales, para analizar el comportamiento de los usuarios de servicios de comunicación móvil residentes en Galicia. El modelo conceptual recoge las variables valor percibido, calidad del servicio e imagen corporativa de la empresa de telecomunicaciones y su influencia en la satisfacción y lealtad de los usuarios. Los resultados obtenidos muestran que tanto la calidad percibida, como la calidad del servicio y la imagen corporativa de la empresa influyen positivamente en la satisfacción de los usuarios, mientras que únicamente la calidad del servicio tiene una influencia en la lealtad. Sin embargo, nuestro trabajo muestra que esta relación es negativa, de manera que parece que los usuarios que perciben un servicio de comunicación móvil como de buena calidad, no serán leales al operador que le suministra este servicio, a pesar de que esta misma percepción de la calidad redundará en una mayor satisfacción para el usuario. Se observamos en este punto una importante diferencia de comportamiento respecto a los usuarios de otros países, donde se llevaron a cabo estudios similares como Malasia, Turquía o Grecia. Una explicación plausible para este comportamiento puede estar en que el usuario español asocia la calidad del servicio con servicio más caro, y que esta percepción le lleve a tender a abandonar a su proveedor por estimarlo más caro que los servicios de la competencia, o bien porque entiende que todos los operadores del sector ofrecen un nivel de calidad aceptable y similar, motivo por el cual cambiaría de operador ante otros incentivos como una promoción de precios o una reducción de las tarifas. Finalmente, el estudio pone de manifiesto que tanto el conocimiento del sector, como el tipo de contrato –distinguiendo entre contratos con compromiso de permanencia, y contratos sin compromiso de permanencia-, son variables moderadoras.

Este trabajo de investigación ha sido presentado en el *15th International Conference on Technology, Policy and Innovation*, celebrado en Milton Keynes Center (Reino Unido) en junio de 2015. Por otro lado, este artículo se ha sometido a la revista académica *Computers in Human Behavior*, encontrándose en la primera etapa de revisión.

#### **P.4.2. Segundo artículo: “Customer Satisfaction and Switching Intention in Mobile Services: Does the type of Subscription contract matter?”**

Teniendo en cuenta los resultados del primer trabajo, y una vez comprobado el papel moderador que desempeña el tipo de suscripción o contrato, se plantea profundizar en este aspecto. Así, siguiendo la orientación de mis directores de tesis, se procede a trabajar con la muestra de usuarios ya obtenida, la cual se divide en dos grupos diferenciados, teniendo en cuenta si los usuarios son libres de contratar con cualquier operador, o bien si mantenían el denominado *compromiso de permanencia*, una cláusula por la cual los clientes deben respetar el contrato suscrito con el operador de servicios móviles durante un periodo contratado largo, generalmente entre 12 y 24 meses, y cuyo incumplimiento lleva asociada una penalización económica. En este segundo estudio se analizan tanto variables que influyen en la satisfacción del usuario, como variables que influyen en su intención de cambiar de empresa de servicios móviles. Al igual que en el artículo primero, la metodología empleada es un análisis mediante un modelo de ecuaciones estructurales, realizando un análisis multigrupo, que permite analizar dos muestras diferentes –los usuarios con contrato con compromiso de permanencia, y los usuarios este compromiso de permanencia-. Los resultados obtenidos en este estudio se permiten afirmar que ambos grupos de usuarios tienen un comportamiento similar, y por tanto que el modelo conceptual propuesto es válido. Sin embargo, el análisis revela algunas diferencias interesantes, como por ejemplo que la imagen corporativa de la empresa de telecomunicaciones influye positivamente en la satisfacción de los usuarios con compromiso de permanencia, mientras que esta influencia no pudo demostrarse para aquellos usuarios sin compromiso de permanencia. Finalmente, los resultados de este segundo

artículo destacan que el conocimiento del sector de los servicios móviles no influye a la intención de cambiar de empresa proveedora.

Este trabajo de investigación ha sido aceptado para su presentación en el XXVII Congreso Nacional de Marketing (AEMARK), que se celebrará en Pamplona (España) el próximo mes de septiembre de 2015. Además, este artículo se encuentra en fase de revisión en la revista académica *Journal of Services Marketing*.

#### **P.4.3. Tercer artículo: “Customer Satisfaction with Digital Content: An approach to consumption through mobile devices”.**

Una vez analizada la generación de satisfacción, lealtad e intención de cambio de los usuarios de servicios de comunicación móvil, se planteó el ir un paso más allá, y pasar a analizar la satisfacción con los contenidos que se ven a través de cualquier dispositivo móvil, ya sea un *smartphone*, una tableta, etc. El motivo fundamental para este tercer estudio reside en la rápida evolución de la tecnología de las telecomunicaciones, y es que actualmente la tecnología digital rompe con el modelo tradicional de negocio de las empresas de servicios de comunicación móvil, basada en los servicios de voz, mientras que la tecnología actual permite un aumento exponencial de la calidad de las señales de radio y televisión, gracias al incremento de la capacidad de compresión de la señal, aumentando la calidad de la señal audiovisual. A la vez, Internet irrumpe en este contexto ofreciendo contenidos, para pasar a competir con los tradicionales canales de televisión o radio. Como consecuencia de todo ello, los modelos de negocio de las empresas del sector de las comunicaciones móviles evolucionan para ofrecer acceso a todo tipo de contenidos digitales en soportes móviles, a la vez que ven reducidos sus ingresos por servicios de voz. Los responsables del crecimiento de consumo de contenidos a través de dispositivos móviles son la Televisión en Alta Definición (HDTV), la televisión de tres Dimensiones (3DTV), el Vídeo Bajo Demanda (VoD), el vídeo en Internet y el intercambio P2P. Todos estos cambios ocasionan que el negocio de los operadores de telefonía móvil se traslade hacia la comercialización del tráfico de datos en lugar de los servicios de voz, y el reclamo con el que pueden aumentar la demanda es la oferta de contenidos digitales.

Para realizar este tercer estudio se empleó un nuevo cuestionario estructurado, que permitió obtener un total de 750 respuestas válidas, obtenidas entre usuarios jóvenes residentes en Galicia para conocer cómo es su consumo de contenidos digitales a través de los dispositivos móviles, y más concretamente, para conocer qué les hace estar satisfechos con dichos contenidos. Al igual que en los dos trabajos anteriores, el análisis de los datos obtenidos se realizó mediante un modelo de ecuaciones estructurales, planteando un modelo conceptual que contempla tanto las fuentes de la satisfacción con los contenidos digitales, como las consecuencias de ésta. Después de una exhaustiva revisión de la literatura previa sobre el tema, entre las variables analizadas se incluyeron las propias características de los contenidos, el acceso gratuito, la facilidad de uso, así como una serie de consecuencias –de nuevo la lealtad, el “engagement”, el boca a boca positivo y la interacción con el contenido-.

Los resultados obtenidos en este tercer trabajo muestran que tanto las características específicas de los contenidos, como la facilidad para usarlos y descargarlos influyen de manera positiva en la satisfacción de los usuarios; mientras que no se encontró una relación significativa para el acceso gratuito. Este resultado lleva a plantearse si los usuarios dan por descontado que el acceso a los contenidos es y debe ser gratuito, o si quizá la mayoría de los usuarios jóvenes están actualmente descargando de forma ilegal los contenidos que desean, quizá favorecido por una legislación excesivamente permisiva. Por otro lado, el estudio muestra la relación positiva entre la satisfacción de los usuarios con los contenidos y las consecuencias planteadas en el trabajo, destacando la importante influencia en el “engagement”, la lealtad y el boca a boca positivo. Estos resultados plantean un difícil obstáculo a las pretensiones actuales de los operadores de rentabilizar las descargas de contenidos audiovisuales cobrando una cantidad extra al usuario de servicios de telefonía móvil.

Este trabajo ha sido sometido a la revista académica *Information & Management*, si bien aún se encuentra en fase de revisión.





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## **Chapter 1 - Customer satisfaction and loyalty in mobile services: the role of sector knowledge and type of contract**

### **1.1. Abstract**

**Introduction:** With the rapid development of communication technologies in the marketplace, mobile devices and wearable gadgets have created a huge market for mobile communication services' companies, which are facing intense competition.

**Purpose:** The present study proposes and empirically tests an integrative model to examine the relationships among service quality, perceived value, corporate image, customer satisfaction and loyalty with mobile communication services. In addition, the moderating role of sector knowledge and type of subscription contract were also examined.

**Methodology:** The data was analyzed by Structural Equation Modeling (SEM), drawing on a sample of 370 customers, while moderating effects were examined through multiple group analysis.

**Findings:** Analysis results showed that service quality exerts the highest influence on customer satisfaction, followed by perceived value and corporate image; while customer loyalty is strongly influenced by satisfaction. In addition, our findings suggest that the sector knowledge and the type of subscription contract play a moderating role on the influence of perceived value on customer satisfaction, as well as the impact of perceived value on customer loyalty.

**Implications:** Accordingly, mobile service providers should focus their efforts towards enhancing perceived service quality in order to enhance customer satisfaction.

**Keywords:** *Mobile Services, Satisfaction, Loyalty, Subscription contract.*

## **1.2. Introduction**

The mobile phone *penetration rate*, which is the number of active mobile phone lines within a specific population has increased in the past decades. According to OECD (2013), as of 2013, the world average penetration rate is estimated 96.2%, nearly the triple of that in 2005. Moreover, the world active mobile-broadband subscriptions per 100 inhabitants surpassed that of the fixed-broadband (Hsiao & Chen, 2015). Therefore, the mobile communication services' market is entering a new period. Fostered by the rapid development of communication technologies, the growing availability of wireless internet services and the increasing demand from customers, along with the popularization of the smartphones, the mobile phone companies are currently offering a combination of multimedia and data services (Kim, Park, & Jeong, 2004), while trying to attract new customers and retain the current customers. In this increasingly competitive market, the ability to provide a high level of customer satisfaction services is a key issue in order to differentiate themselves from competitors and enhance customer loyalty (Deng, Lu, Wei, & Zhang, 2010). Since customer satisfaction reflects the degree of a customer's positive feeling for a service provider in the mobile services' context, it is important for mobile providers to understand how customer satisfaction stems from. In fact, building strong and long-term relationships and developing customers' loyalty is crucial for mobile services companies in gaining a sustainable competitive advantage (Nasir, 2005), since attracting new customers is considered more expensive than retaining current ones (Reichheld & Schefter, 2000).

In mobile communication services, once customers have been acquired and connected to the telecommunications network of a particular operator, their long-term relationship with the operator is of great importance for the company (Gerpott, Rams, & Schindler, 2001). More specifically, one critical issue for the continued success of mobile companies is their capability to retain their current customers and make them loyal, since numerous telecommunication companies are losing their clients and disloyal customers can amount to millions of lost revenue a profit (Aydin & Özer, 2005). But despite mobile services have become on the main sectors in service marketing; the academic research on mobile user behavior has been scarce.

In this context, the present study examines the creation of customer satisfaction and loyalty in a service setting –the mobile communication services-, by empirically testing a service satisfaction-loyalty model linking perceived value, service quality and corporate image. More precisely, it is known that corporate image (Nguyen & Leblanc, 2001), perceived value and service quality (Bolton & Drew, 1991) have significant effects on customer satisfaction and customer loyalty. So, the present study proposes and empirically tests a conceptual model, incorporating the relationships among perceived value, service quality, corporate image, customer satisfaction and loyalty, which are tested through structural equation modeling. In addition, our research analyzes the moderating role of the sector knowledge by customers, as well as the moderating role of the type of subscription contract. That is, we will examine whether the consumers' sector knowledge and their type of contract may have moderating role of the relationship between perceived value and satisfaction, as well as on the relationship between perceived value and loyalty. The empirical study was developed in a Southern European market –Spain-, since it represents an excellent basis for the research for being a mature mobile services market where mobile devices have been widely adopted.

The present study is structured as follows. First we present the antecedent variables of consumer satisfaction and customer loyalty. Second, the hypotheses and the structural model are proposed. Then, the methodology is described, and finally the results are discussed.

### **1.3. Conceptual framework and research hypotheses**

#### **1.3.1. Consumer adoption of mobile services**

The mobile phones or mobile devices became communication devices integrated into everyone's daily life (Kuo, Wu, & Deng, 2009), being exponentially adopted by consumers nowadays. While classic mobile phones offer voice and text-messaging capabilities, with some other features; mobile services offer larger and higher resolution screens and a wide array of applications –apps-, and value-added services (Barnes, 2002; Persaud & Azhar, 2012), attracting customers for their many practical and entertainment applications, and because they can personalize devices and add

features specific to their needs. Thus, mobile devices have gained global acceptance within a relatively short period of time (Barnes & Scornavacca, 2004; Persaud & Azhar, 2012).

### **1.3.2. Sources of customer satisfaction with mobile services**

Customer satisfaction could be conceptualized as an experience-based overall evaluation made by the customer based on whether his overall expectations on the services obtained from a provider have been fulfilled (Parasuraman, Zeithaml, & Berry, 1998). So, customer satisfaction can be defined as a qualitative perception based on the assessments made by the customer regarding different value drivers referring to their consumption experiences (Eshghi, Haughton, & Topi, 2007). In the mobile services context, customer satisfaction reflects the degree of a customer's positive feeling for a mobile services' provider (Deng et al., 2010). So, when customer has a good experience with a mobile service provider, he will develop customer satisfaction (Deng et al., 2010). The customer satisfaction with mobile services has been related with the call quality, the good value for money, customer services and convenient procedures (Lee, Lee, & Freick, 2001), along with the mobile provider meeting customers' personal needs (Gerpott et al., 2001). Consequently, in our study, we will define customer satisfaction as the total consumption perception of customers when using a mobile service provider.

#### **1.3.2.1. Service perceived value**

Following Zeithaml (1988), perceived value could be conceptualized as the consumers' overall assessment of the benefits of a product or service, based on perceptions about what is being received. Moreover, perceived value is related to customer satisfaction (Sweeney and Soutar, 2001). In the mobile services industry, service perceived value could be defined as the evaluation of the benefits of the service by customers, based on their advance sacrifices and ex-post perceived performance when they use mobile services (Kuo et al., 2009). So, customers integrate their perceptions of what they get and what they give up in mobile phone services.



Previous researches have pointed out that the key factors of mobile companies' success are the enhancement of perceived value and customer satisfaction (Yang & Peterson, 2004). Service perceived value is acknowledged in literature as an antecedent which positively influences customer satisfaction (Choi, Cho, Lee, Lee, & Kim, 2004; Lin & Wang, 2006; Turel & Serenko, 2006). Moreover, previous research highlights that perceived value also influences customer loyalty. So, when customers perceive that the value they are obtaining from a mobile service provider is high, they are more willing to engage with this company (Deng et al., 2010). An according to Sirdeshmukh, Singh and Sabol (2002) perceived value is instrumental in influencing customer loyalty. Thus, we propose that when customers perceive a high service value, they will have an increased satisfaction, which in turn lead to a greater customer loyalty. Thus, the following research hypotheses are posed:

*H<sub>0</sub>: The mobile service perceived value is positively related to customer satisfaction*

*H<sub>1</sub>: The mobile service perceived value is positively related to customer loyalty*

#### **1.3.2.2. Service quality**

According to Zeithaml (1988) service quality could be conceptualized as the consumers' judgment about the overall excellence or superiority of a service. Following Shin and Kim (2008), service quality is defined as the consumers' overall impression of the relative efficiency of a service provider. Service quality is especially important in the context of mobile services, since previous researches have pointed out as one key factor of mobile companies' success the service quality provided (Yang & Peterson, 2004). Previous literature highlights as the main drivers of perceived service quality the network connection quality, the good *value for money* and the customer service (Gerpott et al., 2001). Other authors pointed out as relevant factors of poor service quality the frequent disconnection or the lack of access (Aladwani & Palvia, 2002; Shin, 2010). In this vein, Lin and Wang (2006) highlighted as the main variables of mobile services quality which customers evaluate, the pricing policy, the network quality, the entertainment offer, the billing system and also the customer service.

Service quality influences and is an antecedent of customer satisfaction (Parasuraman et al., 1988; Cronin, Brady, & Hult, 2000; Shin & Kim, 2008); and service quality is supported as a driver of customer satisfaction in mobile services industry (Choi et al., 2004; Lin et al., 2006; Turel & Serenko, 2006; Deng et al., 2010; Lu, Tu, & Jen, 2011). According to Cronin et al. (2000) favorable service quality perceptions improve satisfaction. Furthermore, when customers evaluate mobile services, they focus on the service quality they will receive, thus influencing customer satisfaction (Özer, Argan, & Argan, 2013). Consequently, we propose that when customers perceive high service quality, they will have an increased satisfaction. On the other hand, service quality enhances customers' inclination to buy again, to buy more, to become less price-sensitive and to tell others about their favorable experiences (Venetis & Ghauri, 2000). In the mobile communications' sector, several researches find links between the service quality and customers' loyalty to a particular company or mobile communications' provider (Achour, Pujawati, & Boerhannoeddin, 2011; Amin, Norulkamar, Ahmad, & Lim, 2012; Giovanis, Zondiros, & Tomaras, 2014). Therefore, the following research hypotheses are posed:

*H<sub>2</sub>: The mobile service quality is positively related to customer satisfaction*

*H<sub>3</sub>: The mobile service quality is positively related to customer loyalty*

Finally, previous research highlights that qualitative improvements in service quality provided is perceived as company attribute that enhances the perceived value of the service. Consequently, in the present study we propose that there is a positive relationship between service quality and perceived value. So, the following hypothesis is presented:

*H<sub>6</sub>: The mobile service quality is positively related to perceived value*

### **1.3.2.3. Corporate image**

According to Barich and Kotler (1991), corporate image is defined as the overall impression made on the minds of consumers about a company. Corporate image is a result of an evaluation process, since it stems from all the consumer's consumption experiences that are retrieved from memory and transformed into images (Aydin and Özer, 2005). Following Deng et al. (2010), the customers' perceptions of the service

company related to attributes such as integrity, ability or experience are crucial for building and maintaining long-term customer relationships. The reason is that when customers perceive that a mobile services company is reliable, trustworthy and with wide experience, they feel more satisfied (Deng et al., 2010). Accordingly, the corporate image is an important driver of customer satisfaction (Martensen et al., 2000). On the other hand, following Johnson et al. (2001), corporate image affects behavioral intentions such as customer loyalty. Nguyen and Leblanc (2001) showed that corporate image is positively related with customer loyalty in telecommunications sector. Consequently, the following hypotheses are posed:

*H<sub>4</sub>: The mobile company corporate image is positively related to customer satisfaction*

*H<sub>5</sub>: The mobile company corporate image is positively related to customer loyalty*

Finally, considering previous research, we propose a positive relationship between service quality and corporate image. In fact, according to Aydin and Özer (2004), the customer's perception of service quality directly affects the perception of corporate image. So, the below research hypothesis is presented:

*H<sub>7</sub>: The mobile service quality is positively related to corporate image*

### **1.3.3. Loyalty as a consequence of customer satisfaction with mobile services**

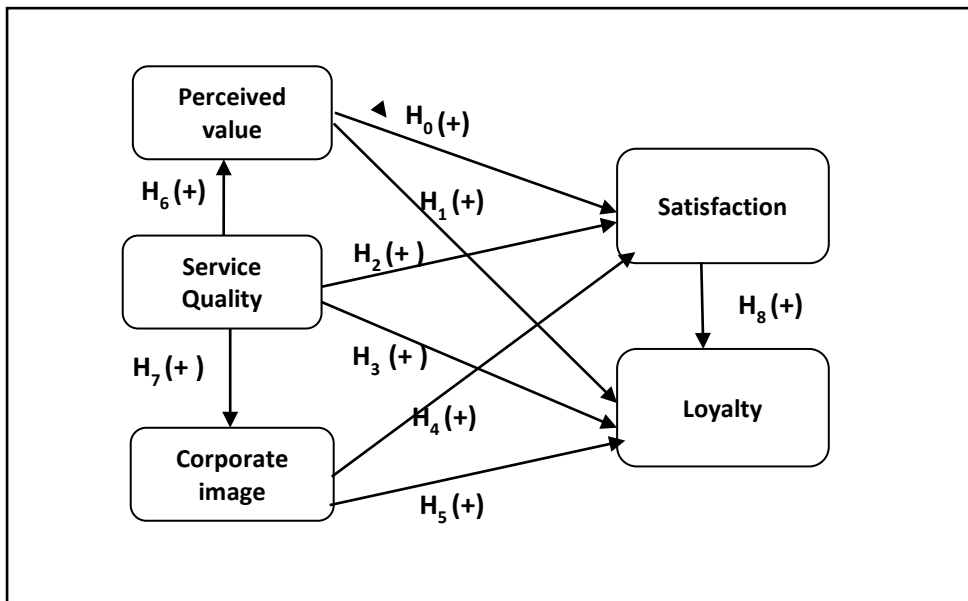
Following Oliver (1999), loyalty could be conceptualized as a deep commitment to rebuy or repatronize a preferred product or service consistently in the future, thus causing repetitive purchasing. According to Gerpott et al. (2001), loyalty in the telecommunication industry could be defined as a continuation of a business relationship between a service provider and a customer; thus, representing subsequent purchases, contract extension, or the intention of the customer to make future purchases from the service provider. So, in our study, we define customer loyalty as the customers' behavioral intention to continuously use mobile communication services with their present service providers.

Considering previous research we expect a more favorable customer loyalty for highly satisfied customers, than for these customers with a low degree of satisfaction (Kim et al., 2004). In fact, customer satisfaction is considered as an important

determinant of customer loyalty (Eggert & Ulaga, 2002), since customer satisfaction positively influences customer loyalty (Choi, Seol, Lee, Cho, & Park, 2008). Previous research demonstrates that customers who experience a high level of satisfaction are more likely to remain with their current mobile service provider, maintaining their subscription.

*H<sub>8</sub>: Customer satisfaction is positively related to customer loyalty*

**Figure 1.** Conceptual proposed model



#### 1.3.4. The moderating role of sector knowledge

According to Bell, Auh, & Smalley (2005), consumers who have a high level of knowledge on a specific service, have a greater ability to evaluate information on alternatives, acquire and process information and make purchasing decisions better suited to their needs, leading them to better purchase decisions. In this way, consumers with a high level of sector knowledge, are better informed about the services offered, their characteristics and the alternatives available.

In addition, and following Lee et al. (2001), customers who became familiar with the characteristics of their service providers, perceive the switch to an alternative provider as a potentially time-consuming task. So, in this vein, the sector knowledge - understood as a switching barrier-, is likely to have a positive moderating influence on the satisfaction-loyalty link (Lee et al., 2001). Consequently, the sector knowledge may

affect the customers' evaluation of the relationship with the service provider; and thus, sector knowledge may play a moderating role on the relationship of perceived value on satisfaction, as well as on the perceived value-loyalty. So, in the present study we hypothesize that the degree of knowledge about the mobile services sector may play a moderating role and influence customer satisfaction and loyalty. Thus, the following hypotheses are posed, relative to the moderating role of sector knowledge:

*H<sub>9</sub>: Customer sector knowledge moderates the influence of perceived value on customer satisfaction.*

*H<sub>10</sub>: Customer sector knowledge moderates the influence of perceived value on customer loyalty.*

### **1.3.5. The moderating role of the type of subscription contract**

The mobile services represent a continuous contractual transaction carried out over a long period of time. According to Gerpott et al. (2001), this service contractual subscription implies that customers pay a monthly fee in order to use the mobile communication network, and additionally, customers pay charges according to the time of use or to type of services enjoyed.

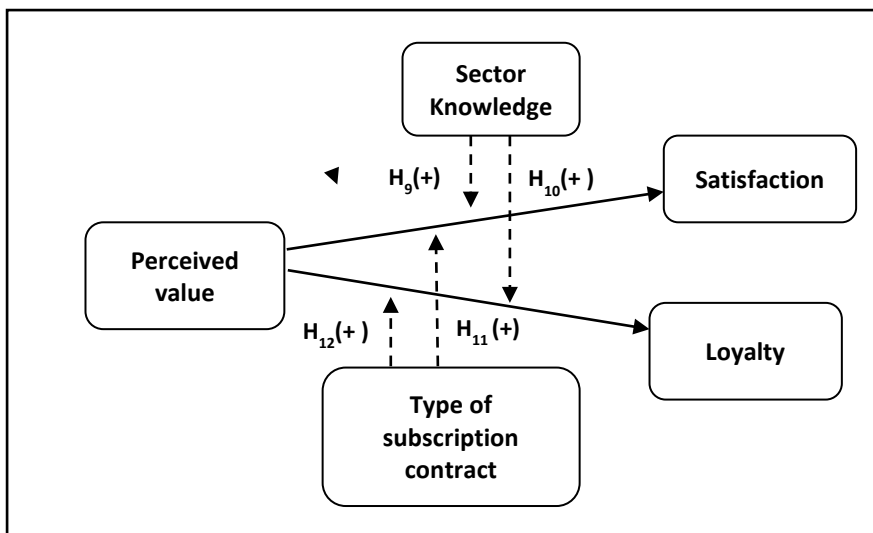
On one hand, the conventional mobile services' contract is implicitly extended over time, unless explicitly terminated by one of the parties. Usually, this type of contract comprises monthly-pay subscriptions, with the clear purpose of tying customers into minimum-term contracts, limiting the churn rate and increasing the mobile service usage. Nevertheless, this type of contract could be terminated at any time by the customer, meaning no strict contractual commitments. In this type of subscription contracts –the so-called *no permanence commitment contracts* or *free-contracts*- the operator has great interest in motivating the customer actively to maintain the contractual relationship over the time. On the other hand, it is a common practice that mobile services companies offer mobile devices at a very low price or even for free –subsidized mobile devices- when customers subscribe a *long-term permanence compromise* contract. In turn, mobile operators require that their customers sign a long-term subscription contract, in order to make up what they have lost on the device given almost for free (Valletti & Cave, 1998; Gerpott et al., 2001). Consequently,

customers are obliged to enter and subscribe a long-term contractual relationship with the mobile operator, usually for 24 months or even for a longer period (Usero-Sánchez & Asimakopoulos, 2012; Yang, 2013), if they wish to receive a free or lower price mobile device. These type of subscriptions are also called *lock-in contracts*, given that the long-term contracts establish the length of time required in order to switch provider, representing a lock-in practice. Moreover, when a subscriber wishes to withdraw from the service during the compulsory subscription period, the mobile services company requires the return of the subsidized mobile device as a penalty (Kim et al., 2004). Therefore, an examination of the type of subscription contract of a service, and its moderating effect on the antecedents of satisfaction and loyalty, should offer important insights into the moderating role on the perceived value–satisfaction–loyalty links. Thus, the following research hypotheses are presented:

*H<sub>11</sub>: The type of subscription contracts moderates the influence of service perceived value on customer satisfaction*

*H<sub>12</sub>: The type of subscription contracts moderates the influence of service perceived value on customer loyalty*

**Figure 2.** *Proposed Moderating relationships*



Source: Own Elaboration

**Table 1.** *Literature review on customer satisfaction with mobile services*

<b>Authors</b>	<b>Target</b>	<b>Methodology and scope</b>	<b>Findings</b>
<b>Lee and Cunningham (2001)</b>	<b>Mobile phone service in France</b>	Subjects for this study consist of 256 respondents subscribing wireless services from various vendors.	Examines the link between customer satisfaction and loyalty. Findings suggest that switching costs play an important role.
<b>Gerpott et al. (2001)</b>	<b>Mobile phone service in Germany</b>	The study tests customer retention, customer loyalty and customer satisfaction should be treated as differential constructs which are causally inter-linked. The research was conducted in Germany, drawing a sample of 684 customers of mobile services' operators.	Customer satisfaction has a significant impact on customer loyalty which in turn influences a customer's intention to terminate or extend the contractual relationship with the mobile operator.
<b>Lee et al. (2001)</b>	<b>Korea mobile communications market</b>	The study analyzed the consumers' preferences to rank a set of alternatives, in the Korean mobile telecommunications market.	The analysis showed that the switching costs have been lowered considerably since number portability has been in force. However, a significant level of switching costs still remains despite number portability
<b>Yang and Peterson (2004)</b>	<b>Internet Market</b>	Analysis of the content validity of the measurement scales, drawing a sample of 50 customers.	The moderating effects of switching costs on the association of customer loyalty and customer satisfaction and perceived value are significant only when the level of customer satisfaction or perceived value is above average.
<b>Aydin and Özer (2005)</b>	<b>Turkish mobile telecommunication market</b>	The data was obtained from 1,662 mobile phone users in Turkey, and analyzed by structural equation modeling (SEM)	Perceived service quality is a necessary but not sufficient condition for customer loyalty.
<b>Shin and Kim (2008)</b>	<b>Mobile number portability in the U.S. mobile market</b>	Data were collected among customers of mobile services in the U.S. The proposed model evaluated the influence of variables on the customer decision about either switch or not switch.	Customer satisfaction, switching barriers, and demographics significantly affect subscribers' intent to switch. Among them, switching barriers had the most significant influence.
<b>Lai et al. (2009)</b>	<b>Loyalty towards telecoms providers in China</b>	Proposal and test of an integrative model to examine the relationships among service quality, value, image, satisfaction and loyalty from customers of one of China's largest telecommunications providers.	Customer satisfaction and perceived value directly influence customer loyalty and play important mediating roles.
<b>Amin et al. (2010)</b>	<b>Telecommunication services in Malaysia</b>	Data were collected from 185 telecommunication users among university students. In order to identify factors that constitute to customer loyalty. Multiple regression analysis was performed in analyzing the contributing factors of customer loyalty.	Four contributing factors are positively related to consumer loyalty. Perceived service quality is the most critical factor influencing customer loyalty, followed by corporate image and trust.

<b>Authors</b>	<b>Target</b>	<b>Methodology and scope</b>	<b>Findings</b>
<b>Edward et al. (2010)</b>	<b>Cellular services in India</b>	The data was collected from 220 mobile phone users in India, ensuring adequate representation based on the type of user - prepaid, postpaid-, type of operator, and usage experience.	Switching costs can increase customer loyalty; and can also reduce the impact of customer satisfaction on customer loyalty. Raise the question of whether mobile service providers should promote a business model based on switching costs, rather than on satisfaction.
<b>Tung (2010)</b>	<b>Mobile services industry in China</b>	Analysis of data collected from mobile phone subscribers for mobile services in China	Perceived expectations, perceived quality, perceived value, perceived usefulness and perceived ease of use have a major positive effect on customer satisfaction with mobile services. Also customer satisfaction has a positive direct impact on customer loyalty
<b>Lu et al. (2011)</b>	<b>Service providers</b>	The model explores many causal relationships among constructs and a series of linear equations need to be solved on the basis of structural equation modelling (SEM).	Service value is the most effective predictor of satisfaction and customers' behavioral intentions. Findings support the delivery of service value as a strategic imperative.
<b>Giovanis et al. (2014)</b>	<b>Broadband services in Greece</b>	Data were collected from 600 customers of broadband service providers in Greece. The method of partial least squares path methodology (PLS-PM), and structural equation modeling (SEM) was employed	Service quality is positively associated with emotional satisfaction and customer loyalty. While emotional satisfaction is positively associated with image and customer loyalty; image is associated with loyalty. Provides insights on the role of emotions in service experience evaluation
<b>Calvo-Porrá and Lévy-Mangin (2015)</b>	<b>Loyalty, Satisfaction and Switching costs in Spain</b>	Drawing on a sample of 370 customers, an analysis was developed through structural equation modeling.	Customer satisfaction with their smartphone services is determined by two key variables -service value and corporate image-, while switching costs exert a low influence on customer satisfaction.

## **1.4. Methodology**

### **1.4.1. Data collection**

Mobile devices have been widely adopted and popular in Spain, presenting a large number of mobile phone users –35 million-, and a smartphone penetration rate of the 66% in year 2012 (Comscore, 2013). The UE regulation released mobile numbers' portability in year 2003, and consequently, the number portability did not longer act as a switching cost, and in addition in the Spanish market, it was a common practice to



subsidize the purchase of mobile devices when subscription contract was involved; trying to lower the switching costs for new customers.

The data for the study were collected by a self-administered structured on-line questionnaire in March 2013 among users residing in Spain. Potential respondents were contacted by e-mail to participate in the study. We first pre-tested the questionnaire on a small sample of 10 mobile service users. Then, we proceeded with a random sampling among consumers, inviting them to complete the on-line questionnaire, and asking them about their mobile services' companies, in order to gather information regarding the specific company they have knowledge or customer experience. In addition, the questionnaire includes one question regarding the type of subscription contract users had with their mobile providers, distinguishing between *lock-in contracts* and *no commitment or free contracts*. Thus, each one of the participants evaluated their own mobile services company. Finally, this procedure yielded a total of 411 completed questionnaires, obtaining a total amount of 370 valid responses comprising several mobile companies. The sampling error was 5.19%, with a confidence level of 95% under the hypothesis  $p=q=0.50$ . The last part of the questionnaire contained several socio-demographic questions.

#### **1.4.2. Variables and measurement scales**

All of the constructs in the conceptual model were measured using a multiple-item measurement scale, and all measures used a five-point Likert-type scale, with strongly disagree and strongly agree as the anchors. The measurement items were developed using a review of the literature related to our study. The *service perceived value* is measured by three items adopted from Kuo al. (2009) and Bigné, Sanchez-García, & Currás-Perez (2011), in order to assess customers' perception the company vale, such as a good value for money and the overall perceived value. Secondly, the service quality was measured by three items adopted from Kuo et al. (2009) to assess customers' perception of the service quality. Third, we used three items to measure the corporate image, adopted from previous studies (Nguyen & LeBlanc, 2001; Bigné et al. 2011), based on the research line about the image and associations in consumers' perceptions. Regarding the variable consumer *satisfaction*, we considered four items

proposed by Burnham, Frels and Mahajan (2003) and Kuo et al. (2009). Additionally, in order to measure customers' *loyalty*, we adopted three items from previous research (Yoo, Donthu, & Lee, 2000). Finally, for measuring sector knowledge, we used one item proposed by Sharma and Patterson (2000) and Bigné et al. (2011).

**Table 2.** *Variables and indicators.*

<b>Constructs</b>	<b>Indicators</b>	<b>MEAN</b>	<b>SD</b>
<b>Perceived Value</b> Kuo et al. (2009), Bigné et al. (2011)	PV1: My mobile services' company has successfully provided value-added services	2.75	1.260
	PV2: Contracting mobile services of this company was a good decision	3.18	1.190
	PV3: This mobile services' company provides me with many benefits	2.82	1.215
<b>Service Quality</b> Kuo et al. (2009)	QAL1: My mobile company offers affordable services	3.39	1.271
	QAL2: My mobile company provides services with good value for money	3.10	1.279
	QAL3: My mobile company covers my needs perfectly	3.26	1.197
<b>Corporate image</b> Nguyen and LeBlanc (2001), Bigné et al. (2011)	CI1: This company has a good image among consumers	3.19	1.115
	CI2: I have a better image of my mobile services company, rather than other competing companies	3.28	1.220
	CI3: I have a good image and associations of my mobile services company	3.21	1.194
<b>Customer Satisfaction</b> Burnham et al. (2003), Kuo et al. (2009)	SAT1: I am highly satisfied with the services provided by my mobile services' company	3.32	1.238
	SAT2: My company gives me what I expect from a smartphone services company	3.24	1.270
	SAT3: So far, my mobile company has satisfied my expectations	3.22	1.207
	SAT4: The decision to contract my mobile services' company was a good decision.	3.29	1.132
<b>Loyalty</b> Yoo et al. (2000)	LOY1: I will continue my subscription to my company	3.24	1.281
	LOY2: Although there are other mobile providers available, I would continue my subscription with my company	2.97	
		2.91	1.344
<b>Sector Knowledge</b> Sharma and Patterson (2000), Bigné et al. (2011)	KNOW1: I have great knowledge about the mobile services' companies and services provided	3.24	1.128

## 1.5. Results

### 1.5.1. Measurement model

Structural equation modeling was carried out in order to analyze the proposed model with Amos, providing a confirmatory factor analysis and showing a clear factorial

structure for constructs considered. In relation with the internal consistency and reliability, cronbach Alpha, composite reliability coefficients and analysis of the extracted variance extracted were calculated. In first place, we obtained cronbach alpha values from 0.722 to 0.927, thus being acceptable, as suggested Anderson and Gerbing (1988) and Hair, Anderson, Tatham and Black (1998). The composite reliability (CR) of the latent variables was higher than 0.60, indicating that all measures had good reliability (Bagozzi & Yi, 1988; Hair et al., 1998). Additionally, the average variance extracted (AVE) varied from 0.684 to 0.814; thus reaching the threshold of 0.50; meaning that a good convergent validity was obtained (Fornell & Larcker, 1981; Steenkamp & Van Trijp, 1991). Confirmatory factor analyses were employed to address the issues of dimensionality, convergent and discriminant validity (Anderson & Gerbing, 1988). Our confirmatory factorial analysis shows that all standardized factor loadings are significant, with a reliability level of 95% and reaching the commonly used threshold of 0.60 (Nunnally, 1978). Results are shown in Table 3.

**Table 3.** *Factor loadings and indicators of consistency and reliability*

CONSTRUCTS	ITEMS	MOBILE SERVICES			
		Lambda	Alpha Cronbach	CR	AVE
Perceived Value	PV1	0.725	0.863	0.865	0.684
	PV2	0.895			
	PV3	0.851			
Service Quality	QAL1	0.833	0.899	0.901	0.752
	QAL2	0.886			
	QAL3	0.881			
Corporate Image	CI1	0.699	0.862	0.865	0.685
	CI2	0.842			
	CI3	0.926			
Satisfaction	SAT1	0.892	0.932	0.933	0.814
	SAT2	0.879			
	SAT3	0.854			
	SAT4	0.905			
Loyalty	LOY1	0.909	0.722	0.816	0.691
	LOY2	0.745			

### 1.5.2. Structural model

Structural equation modeling was developed to assess the statistical significance of the research hypotheses. All the model fit indices exceeded the respective common acceptance levels (Hair et al., 1998), indicating that the measurement model of customers' satisfaction, exhibited a good fit of the collected data. Model fit criteria

suggested by Hu and Bentler (1996) were used for both the measurement and the structural model:  $X^2 / df$ , goodness of fit (GFI), adjusted goodness of fit (AGFI), comparative fit index (CFI), root mean square residual (RMR) and root mean square error of approximation (RMSEA). Acceptable models should have  $X^2 / df \leq 3$ , AGFI  $\geq 0.80$ , RMR  $\leq 0.1$ , RMSEA  $\leq 1.0$  and GFI and CFI higher than 0.90. All of the obtained fit measures indicated that the structural model was acceptable (Table 4).

**Table 4.** *Structural modeling adjustment indexes.*

Absolute Fit Measures						Incremental Fit Measures					Parsimony Measures
Chi-square	df	p	GFI	RMSEA	RMR	AGFI	NFI	IFI	TLI	CFI	Normed Chi-square
236.653	81	0.000	0.923	0.073	0.036	0.886	0.956	0.971	0.962	0.970	2.922

### 1.5.3. Discussion

The results obtained report that service quality is the dimension with higher loading on customer satisfaction ( $\beta_3=0.675^{**}$ ), followed by perceived value ( $\beta_1=0.225^{**}$ ) and mobile corporate image ( $\beta_5= 0.159^{**}$ ). Thus, in terms of the effect size, the mobile communication service quality seems to contribute the most to customer satisfaction. Additionally, we found empirical evidence to propose a significant positive relationship between perceived value and customer satisfaction, along with a slight but positive relationship between the mobile corporate image and customer satisfaction. All these relationships were in the expected direction. So, it can be stated that the better and more favorable mobile service quality, perceived value and company corporate image, the higher customer satisfaction (Table 5).

On one hand, regarding the variables influencing customer loyalty towards mobile services it should be highlighted that only one of the proposed relationships is significantly positive, regarding the influence of customer satisfaction on customer loyalty ( $\beta_8= 0.962^{**}$ ), showing the highest impact. However, the other analyzed variables, namely the service perceived value ( $\beta_2=0.212^{ns}$ ) and corporate image ( $\beta_5=0.192^{ns}$ ) showed not statistical significance on customer satisfaction contrary to our expectations, since the relationships were in the expected direction, but failed to reach statistical significance for both variables. Therefore, our findings do not empirically support a significant relationship between perceived value and customer

loyalty, as well as between corporate image and customer loyalty. One possible explanation may be that Spanish customers do not regard the perceived value or the company corporate image as relevant variables for being loyal to their mobile companies. Maybe other dimensions not included in the present study maybe also influencing the results obtained, such as the switching costs in this sector, that is, the barriers encountered when trying to switch from one service provider to another one. On the other hand, our results highlight a significant inverse relationship between mobile service quality and customer loyalty ( $\beta_4=-0.615^{**}$ ), as initially expected. The reason may be either that Spanish customers consider service quality as not relevant in order to be loyal to one particular mobile services' provider or that customers feel that all the mobile services' providers offer substantial service quality, not perceiving it as an important when being loyal. This result may be explained also by the consumption behavior of Spanish consumers, which is the lack of loyalty despite high service quality provided. Moreover, the no significant influence of the service quality on customers' loyalty may be explained by the fact that alternative mobile services do not lead to significantly better service quality offers.

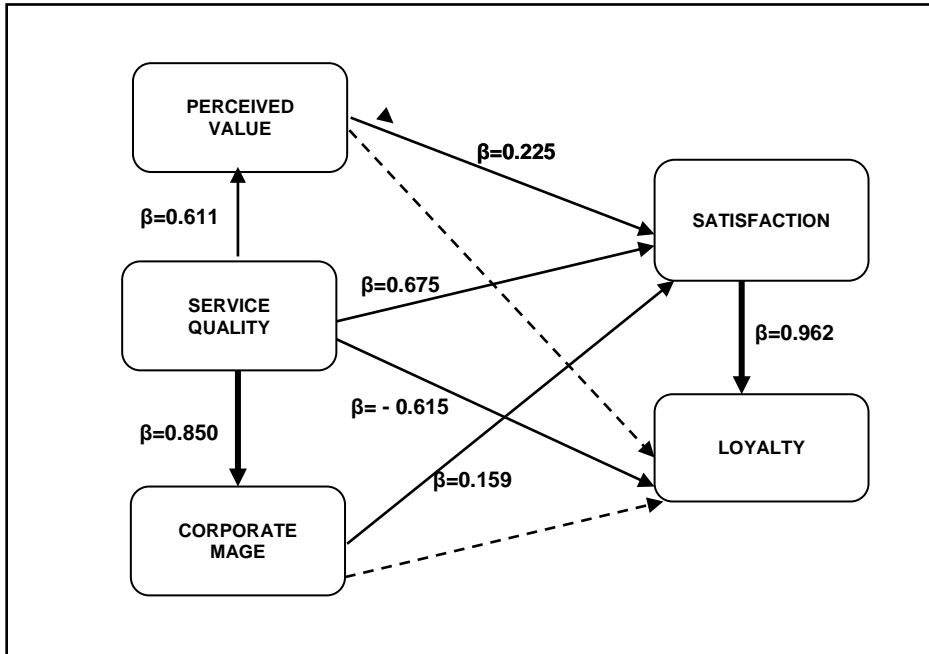
**Table 5.** *Final relationships and hypotheses test*

Relationships	Standardized coefficients	t value	Hypotheses test
Perceived Value → Satisfaction	$\beta_1= 0.225^{**}$	2.240	H <sub>0</sub> : Supported
Perceived Value → Loyalty	$\beta_2= 0.212^{ns}$	1.453	H <sub>1</sub> : No supported
Service Quality → Satisfaction	$\beta_3= 0.675^{**}$	6.988	H <sub>2</sub> : Supported
Service Quality → Loyalty	$\beta_4= -0.615^{**}$	-2.346	H <sub>3</sub> : Supported
Corporate image → Satisfaction	$\beta_5= 0.159^{**}$	2.450	H <sub>4</sub> : Supported
Corporate image → Loyalty	$\beta_5= 0.192^{ns}$	1.730	H <sub>5</sub> : No Supported
Service Quality → Perceived Value	$\beta_6= 0.611^{**}$	7.472	H <sub>6</sub> : Supported
Service Quality → Corporate image	$\beta_7= 0.850^{**}$	12.986	H <sub>7</sub> : Supported
Satisfaction → Loyalty	$\beta_8= 0.962^{**}$	6.066	H <sub>8</sub> : Supported
<i>ns=no significative</i> <i>** significative (p&lt;0.05)</i>	R <sup>2</sup> <sub>Satisfaction</sub> =0.936 R <sup>2</sup> <sub>Loyalty</sub> = 0.895		

Our results provide strong support for seven out of nine research hypotheses - H<sub>0</sub>, H<sub>2</sub>, H<sub>3</sub>, H<sub>4</sub>, H<sub>6</sub>, H<sub>7</sub> and H<sub>8</sub>-; thus not supporting a significant relationship between mobile service perceived value and customer loyalty –H<sub>1</sub>-, and a significant relationship between corporate image and loyalty –H<sub>5</sub>-. The obtained results do confirm that customer satisfaction with mobile services is significantly influenced by service

quality, service perceived value and corporate image. In addition, it was found that mobile service quality exerts a relevant inverse relationship on customer loyalty –H<sub>3</sub>–.

**Figure 2.** Final relationships.



#### 1.5.4. The moderating role of sector knowledge

To test the hypothesis that customers' sector knowledge moderates the effects of perceived value and service quality on satisfaction, as well as the effect of customer satisfaction on loyalty, the structural equation model was analyzed through multi-group analysis. The sample was divided into two groups of customers, according to whether they have high or low mobile communications' sector knowledge. Sample comparisons were then made between individuals who showed a high mobile communications sector knowledge (n=214) and customers with a poor sector knowledge (n=156). For this purpose one specific question regarding the level of sector knowledge was included in the research questionnaire "I have great knowledge about the mobile services' companies and services provided".

First, the proposed model was estimated with all hypothesized parameters allowed to be estimated freely within each subsample ( $X^2=340.991$ ;  $p<0.001$ ; CFI=0.965). Next, in a series of constrained models, the path coefficients corresponding to the relationships between perceived value and satisfaction (H<sub>9</sub>), perceived value and loyalty (H<sub>10</sub>), were

constrained to remain invariant across the two subsamples and the model re-estimated. The significantly higher  $X^2$  values for the constrained models did not improve model fit in any of the cases (Table 6).

This supports the hypothesized moderating role of the sector knowledge on the relationships between perceived value and satisfaction ( $\Delta X^2=1.23$ ;  $df=1$ ,  $p<0.001$ ), and perceived value and loyalty ( $\Delta X^2=0.768$ ;  $df=1$ ,  $p<0.001$ ).

**Table 6.** Moderating role of sector knowledge

Moderating effect	Chi-square	df	CFI		
Unconstrained baseline model	340.991	162	0.965		
Constrained paths	Chi-square	$\Delta X^2$	df	p	Hypotheses
Perceived Value → Satisfaction	342.221	1.23	163	0.001	H <sub>9</sub> :Supported
Perceived Value → Loyalty	341.759	0.768	163	0.001	H <sub>10</sub> : Supported
<b>All path constraint</b> ** <i>significant</i> ( $p<0.05$ )	343.066	2.075	165	0.001	

### 1.5.5. The moderating role of type of subscription contract

We test the hypothesis that the type of subscription contract moderates the influence of perceived value on customer satisfaction and customer loyalty, the structural equation model was analyzed through multi-group analysis. The sample was divided into two groups of mobile services' customers, according to the type of their subscription contract with mobile operators, distinguishing between customers with *lock-in-contracts* ( $n=268$ ) and customers with *free contracts* ( $n=102$ ). In first place, the proposed model was estimated with all hypothesized parameters allowed to be estimated freely within each subsample ( $X^2=305.421$ ;  $p<0.001$ ;  $CFI=0.965$ ). Then, in a series of constrained models, the path coefficients corresponding to the relationships between perceived value and satisfaction ( $H_{11}$ ) and perceived value and loyalty ( $H_{12}$ ), were constrained to remain invariant across the two subsamples, and the model was re-estimated. The significantly higher  $X^2$  values for the constrained models did not improve model fit in any of the cases (Table 7). The results obtained support the hypothesized moderating role of the type of subscription contract on the relationships between perceived value and satisfaction ( $\Delta X^2=0.04$ ;  $df=1$ ,  $p<0.001$ ), perceived value and loyalty ( $\Delta X^2=0.16$ ;  $df=1$ ,  $p<0.001$ ).

**Table 7. Moderating role of type of subscription contract**

Moderating effect	Chi-square	df	CFI		
Unconstrained baseline model	305.421	136	0.965		
Constrained paths	Chi-square	$\Delta X^2$	df	p	Hypotheses
Perceived Value → Satisfaction	305.461	0.04	137	0.001	H <sub>11</sub> :Supported
Perceived Value → Loyalty	305.581	0.16	137	0.001	H <sub>12</sub> :Supported
<b>All path constraint</b> ** <i>significant (p&lt;0.05)</i>	309.836	4.415	139	0.001	

## 1.6. Conclusions

The present study aims to contribute to the existing literature by analyzing the relationships among service perceived value, service quality and corporate image on customer satisfaction and loyalty, focusing on one specific sector –mobile services- and in one European mature market –Spain-. In first place the conceptual proposed model was strongly supported by the data collected, describing some empirical findings of what determines customer satisfaction and loyalty for mobile services. Our findings show that service service quality, is found to have the greatest impact, followed by perceived value, while the company corporate image have less explanatory power of customer satisfaction and loyalty.

One major finding is that mobile service quality is the most important driver of customer satisfaction, being the largest effect followed by service perceived value, while the corporate image showed a slight impact. Moreover, when mobile services providers reinforce their services' quality, customer satisfaction and loyalty are considerably improved. This result is in line with previous research (Kuo et al., 2009), and implies that if mobile services' providers aim to induce higher customer satisfaction, the enhancement of service quality should be prioritized. Additionally, the service perceived value and the company corporate image influence customer satisfaction, but with a lower impact, being in line with Martensen et al. (2000), who highlighted image as one of the drivers for customers' satisfaction in the mobile sector. Therefore, since perceived value and corporate image are variables determining customer satisfaction, mobile companies should struggle to satisfy their customers and build high perceived-valued services, along with strong favorable corporate image.



Other major finding is the inverse influence of service quality on customer loyalty. Our results indicate support for mobile service quality as an inverse determinant of customer loyalty. So that the higher the mobile service quality, the lower customer loyalty, and the greater likelihood it will drive consumers to switch their current service providers. In this sense, the release of mobiles' number portability has removed the constraints in this sector, allowing customers to change mobile service provider easily. One possible explanation is that Spanish customers perceive the services offered very similar in terms of service quality. Maybe, there is a cultural reason, showing that Spanish customers are not loyal to their services' providers, despite receiving a good service quality, or that the downturn context in this market, makes customers highly price-sensitive, willing to change mobile service provider when other services' providers offer price deals or service promotions, which have been very frequent since year 2008.

Other major finding is that our results do not provide empirical support for service perceived value and corporate image as exerting a significant influence on customer loyalty. The reason may be that the Spanish consumers do not consider relevant variables the company image or the service value provided, in order to be loyal to their mobile services' companies. Other explanation may be that the services offered by mobile services are very similar in terms of value provided or corporate image. Other possible reason is that searching for alternative services leads to better offers in terms of price deals or promotions, maybe influencing consumers' intention to change service provider. In addition, our results highlight a positive strong significant relationship between customers' satisfaction and loyalty, confirming previous findings that satisfied customers tend to be loyal (Eshghi et al., 2007).

Finally, other major finding is that our results do support the moderating role of customers' sector knowledge and the type of subscription contract, being this finding one major contribution of the present research. We hypothesized that sector knowledge and type of contract would play a moderating role on the on the influence of service perceived value on satisfaction and customer loyalty, and our results confirm our initial hypotheses.

### **1.6.1. Managerial implications**

Derived from our findings, we propose some useful insights for company managers. Many mobile services' companies are concerned about building and maintaining long-term relationships with their customers (Vazquez-Carrasco & Foxall, 2006); since attracting new customers is considered more expensive than retaining current customers (Reichheld & Schefter, 2000). Our findings suggest that mobile companies may offer personalized and added-value services as a way to increase and enhance customer satisfaction. More specifically, companies should evaluate the core services they currently offer and whether the release of new value-added services could make customers feel the services to be more valuable. In order to improve the customer services' perceived value, the services providers could give personal functional benefits or enhance the key functionalities of mobile services.

Secondly, our findings highlight the importance of service quality and perceived value. More precisely, service quality is instrumental in developing customer satisfaction and drives loyalty. We suggest that instead of following the current industry practice of locking in customers by imposing constraints on switching providers, companies should improve service quality (Eshghi et al., 2007) in order to increase customer satisfaction. Finally, the improvement of the corporate image is also required, since it showed a slight influence on customer satisfaction. We suggest mobile services companies to develop and enhance a corporate image that consumers are aware of and with which consumers have strong and favorable associations.

### **1.6.2. Limitations and future research guidance**

This research has several limitations which also provide possible avenues for future research. As for the main limitation of this study, first we should notice that this empirical research was carried out in one market; and thus the present study provides a limited empirical application. In second place, our study has analyzed a number of dimensions proposed in prior literature, which only represent a small part of all dimensions affecting customer satisfaction with smartphone services providers, such as trust in the company or the price level. Hence, although this study reports interesting results, caution must be exercised when generalizing results; and

consequently, replicating this study in other contexts and countries could validate the findings reported.

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## **Chapter 2 - Customer satisfaction and switching intention in mobile services: does the type of subscription contract matter?**

### **2.1. Abstract**

**Introduction:** Switching costs are a relevant issue affecting market competition in the mobile services industry, and reducing switching will help generating significant benefits for market competition. However, customer switching costs have not disappeared because numerous leading operators use lock-in strategies, such as obliged long-term contractual relationships, in order to increase switching barriers.

**Purpose:** The present study aims to provide and empirically test a conceptual model in order to analyze the creation of customer satisfaction and switching intention with mobile services, as well as to examine the differences according to the type of subscription contract.

**Methodology:** For this purpose, drawing on a sample of 370 customers, we developed Structural Equation Modeling (SEM) through a multi-group analysis.

**Findings:** Our findings suggest that service quality is one of the key determinants of customer satisfaction, while the availability of attractive alternatives is the main switching barrier. Moreover, some interesting differences were found between the two types of subscription contracts analyzed.

**Implications:** Our findings would imply shifting resources to customer retention through improved service quality, improving corporate image or reducing customer switching barriers.

**Keywords:** *Mobile services, Satisfaction, Switching intention, Switching barriers, Lock-in contracts.*

## **2.2. Introduction**

Mobile services are considered as a new marketing application, while the use of mobile communication increased in the recent years and a high penetration level of mobile devices has been achieved (Özer, Argan, & Argan, 2013). The rapid growth of the mobile services market in the past years has resulted in a sector facing a fierce competition among companies, with mobile operators offering a wide range of services and offers to attract new customers and to retain the present customers (Shukla, 2010). In this increasingly competitive scenario, the ability to provide a high level of customer satisfaction, along with a low defection intention are key issues in order to differentiate from competitors (Deng, Lu, Wei, & Zhang, 2010). In addition, switching barriers for consumers is one of the most important issues affecting market competition in the mobile services industry, considering that when consumers can freely switch from one service provider to another, there is an increasing struggle to capture consumers in the marketplace.

Empirical research suggests that mobile services companies often use two strategies to increase customers' retention: first, increasing customer satisfaction so that customers are willing to stay; and second, making any switch or defection difficult for the customer by increasing or developing switching barriers (Jones, Mothersbaugh, & Beatty, 2000; Balabanis, Reynolds, & Simintiras, 2006; Lu, Tu, & Jen, 2011). Therefore, customer switching costs have not disappeared, and today numerous leading operators use lock-in strategies, such as obliged long-term contractual relationships, during which the subscriber has to maintain the service and pay a pre-agreed fixed fee (Shi, Chiang, & Rhee, 2006). Thus, customers may be tied to contracts extending over a long period of time, while receiving in turn a free mobile device. So, it would be interesting to analyze how switching costs manifest through different types of subscription contracts. More specifically, the different types of contracts may be associated with different ways of creation of customer satisfaction and switching intention. For example, if customers feel high lock-in conditions, they may adopt different trade-offs between what they give and they get in the service contract. Accordingly, customer satisfaction and the switching intention may vary depending on the type of contract subscribed.

But, despite the popularization of the mobile devices, there is scarce research on customer satisfaction and customer retention in the services market (Gerpott, Rams, & Schindler, 2001). And considering the prevailing sector practice of locking-in customers by means of restrictive contract subscriptions, there is also a lack of research on the creation of satisfaction and customer retention comparing the type of contract subscribed with the operator. In this context, the present study proposes an integrated model than incorporates the service quality, the corporate image and switching barriers, namely the sector knowledge and the alternative attractiveness, to further examine the formation of customer satisfaction. Furthermore, we develop a comparison between the two main contracts in the mobile services sector –the *lock-in* subscription contracts, and the contracts without customer commitment, the so-called *free contracts*–, in order to analyze the differences in the formation of customer satisfaction and the switching intention. The empirical study was developed in a Southern European country –Spain–, since it represents an excellent basis for the research for being a mature mobile services market where mobile devices have been widely adopted. The proposed model will have significant implications for the mobile service companies in the context of an intensely competitive industry.

This study is structured as follows. First, we present the variables, the research hypotheses and the structural model proposed. Then, the methodology is described, and finally the findings are discussed and some implications and future research guidance are provided.

### **2.3. Literature review and research hypotheses**

#### **2.3.1. The Spanish mobile services sector**

The mobile telecommunications industry in Spain has grown rapidly during the past decade, pushing the overall increase in the penetration of information and communication technologies. Nowadays mobile devices became integrated into everyone's daily life, being exponentially adopted by consumers, since mobile devices penetration rate has reached and exceeded the 100% in year 2008. In addition, the Spanish market's growth rate has reached maturity apparently, with some mobile operators experiencing a decrease in subscriber numbers. In this context, acquiring

new customers is costly and difficult for the Spanish mobile operators; and thus, the best marketing strategy would be to retain the existing customers by strengthening customer satisfaction (Kim, Park, & Jeong, 2004).

Until year 2002, the Spanish customers faced a significant switching cost when shifting one mobile services operator to another one, because doing so would have meant losing the phone number. More specifically, the lack of number portability between mobile communication operators acted as a barrier that prevented customers from terminating their contract with their suppliers, even if their satisfaction was low. In fact, the number portability allows subscribers to retain their phone number when they change mobile service provider, minimizing subscriber inconveniences linked with switching and lowering switching costs.

In year 2003 the UE regulatory authority decided to enforce number portability between operators, completely removing this switching barrier. According to Usero-Sánchez and Asimakopulos (2012), the enforcement of mobile number portability is a regulatory measure taken to reduce switching costs. Consequently, this regulatory decision increased considerably the intensity of competition in the Spanish industry. As a result, in year 2008 the 35.5% of mobile subscribers have switched operator in Spain (European Commission, 2010).

Furthermore, in the Spanish sector it was a common practice to subsidize the purchase of mobile devices when a long-term subscription contract was involved, trying to lower the switching costs for new customers. However, the discontinuing of subsidies for mobile devices from year 2012, caused a reduction in the increase rate of new customers, revealing that the market may have reached maturity. So nowadays, the new of first-time customers is declining sharply, and the acquisition of old customers from other competitors is becoming the main competitive strategy.

### **2.3.2. Mobile services' type of contracts**

The mobile communication services represent a continuous contractual transaction carried out over a long period of time. More specifically, the contractual subscription is structured as follows: customers pay a monthly fee in order to use the mobile

communication network; and in addition, customers pay services' charges according to the time of use or to type of services enjoyed (Gerpott et al., 2001). Moreover, previous literature notes that in mobile communication services once customers have been acquired and connected to a mobile network of a particular operator, their long-term relationships are of great importance to the success of the company in this competitive market (Gerpott et al., 2001). But, what are the most common contracts in the Spanish market.

On one hand, the conventional mobile communication contract is implicitly extended over time unless explicitly terminated by one of the parties. This type of contract comprises monthly-pay subscriptions, with the clear purpose to tie customers into minimum-term contracts, limiting the churn rate and increasing the mobile service usage. However, this type of contract could be terminated at any time by the customer, meaning no strict contractual commitments. In this type of subscription contracts –the so-called *no permanence commitment contracts* or *free-contracts*- the operator has interest in motivating the customer actively to maintain the contractual relationship.

On the other hand, it is a common practice that companies offer mobile devices at a low price or even for free, when customers subscribe a contract with a long-term permanence compromise. In turn, operators require that their customers sign a long-term subscription contract, in order to make up what they have lost on the mobile device given for free (Valletti & Cave, 1998; Gerpott et al., 2001). That is, thus customers are obliged to enter and subscribe a long-term contractual relationship with the mobile operator, usually for 24 months or even for a longer period (Usero-Sánchez & Asimakopoulos, 2012), if they wish to receive a free or lower price mobile device. This type of subscriptions are also called *lock-in contracts*, since this long-term contracts establish the length of time required to switch provider, thus representing a lock-in practice, which aims to lower the barrier for new customers entering the mobile services' market; while mobile service companies use mobile devices at lower costs to lock consumers into their networks.

Consequently, we can state that mobile operators still apply locking practices, as a way of protecting mobile device subsidies, when a long-term contract is subscribed –the so-

called *lock-in* or *commitment contracts*-. In addition, if customers wish to switch operator, they need to purchase another handset or mobile device or unlock their current mobile in order to use another operator services (Usero-Sánchez & Asimakopoulos, 2012). However, this contractual long-term subscription between an operators and customers may increase switching costs (Aydin & Özer, 2005). More specifically, in the lock-in contracts switching costs are constructed by mobile operators strategically in order to retain customers, even when customers are not satisfied (Jones et al., 2000; Patterson & Smith, 2003; Lu et al., 2011). Therefore, mobile service companies create switching barriers to encourage customer retention, such as developing alternative ties in an effort to lock-in customers into an existing contractual relationship with a service provider.

### **2.3.3. Sources of consumer satisfaction**

Customer satisfaction refers to customers' overall evaluation of their purchase and consumption experience (Johnson & Fornell, 2001). Following Gerpott et al. (2001) customer satisfaction could be conceptualized as an experience-based evaluation made by the customer of how his expectations about a product or service have been fulfilled. Similarly, most researchers argue that the higher customer satisfaction, the greater possibility of customers' retention and the less likely a switch to a competitor, securing financial benefits to mobile service companies (Gerpott et al., 2001). Thus, customer satisfaction is a determining factor of customer retention. Accordingly, two main strategies have been developed to encourage favorable customer behavior and increase customer retention: creating customer satisfaction and raising switching barriers (Lu et al., 2011). For this reason, customer satisfaction is not always a sufficient condition for customer retention (Kim et al., 2004); being necessary to analyze other influencing factors, such as switching costs (Jones et al., 2000).

#### **2.3.3.1. Service quality**

According to Zeithaml (1988) service quality could be conceptualized as the consumers' judgment about the overall excellence or superiority of a service. And

following Shin and Kim (2008), service quality is defined as the consumers' overall impression of the relative efficiency of a service provider. High service quality could attract new customers, retain existing customers and also lure customers away from other service competitors whose service quality is perceived as poorer (Babakus, Bienstock, & Scotter, 2004). Thereby, service quality is a critical factor for companies' profitability and market success (Aydin & Özer, 2005).

Service quality is especially important in the context of mobile services, since previous researches have pointed out as the key factors of mobile companies' success the service quality and customer satisfaction (Yang & Peterson, 2004). Moreover, previous literature highlights as the main drivers of perceived service quality the network connection quality, the good *value for money* and the customer service (Gerpott et al., 2001). Other authors pointed out as relevant factors of poor service quality the frequent disconnection or the lack of access (Aladwani & Palvia, 2002; Shin, 2010). In this vein, Lim, Widdows and Park (2006) highlighted as the main variables of mobile services quality which customers evaluate, the pricing policy, the network quality, the entertainment offer, the billing system and also the customer service.

Finally, perceived service quality influences and is an antecedent of customer satisfaction (Parasuraman, Zeithaml, & Berry, 1988; Fornell, Johnson, Anderson, Cha, & Bryant, 1996; Cronin, Michael, Brady, & Hult, 2000; Shin & Kim, 2008); and service quality is supported as a driver of customer satisfaction in mobile services industry (Choi, Cho, Lee, Lee, & Kim, 2004; Lim et al., 2006; Turel & Serenko, 2006; Deng et al., 2010; Lu et al., 2011). According to Cronin et al. (2000) favorable service quality perceptions improve satisfaction; and when customers receive higher service quality, they are more satisfied and have more positive behavioral intentions (Lu et al., 2011). Furthermore, when customers evaluate mobile services, they focus on the service quality they will receive, thus influencing customer satisfaction (Özer et al., 2013). Consequently, we propose that when customers perceive high service quality, they will have an increased satisfaction. So, the following research hypothesis is posed:

*H<sub>0</sub>: Service quality has a positive influence on customer satisfaction*

### **2.3.3.2. Corporate image**

According to Barich and Kotler (1991), corporate image is defined as the overall impression made on the minds of consumers about a company. Corporate image is a result of an evaluation process, since it stems from all the consumer's consumption experiences that are retrieved from memory and transformed into images (Aydin & Özer, 2005). Following Deng et al. (2010), the customers' perceptions of the service company related to attributes such as integrity, ability or experience are crucial for building and maintaining long-term customer relationships. The reason is that when customers perceive that a mobile services company is reliable, trustworthy and with wide experience, they feel more satisfied (Deng et al., 2010). Accordingly, the corporate image is an important driver of customer satisfaction (Martensen, Gronholdt, & Kristensen, 2000). Thus, we propose the following hypothesis:

*H<sub>1</sub>: The corporate image has a positive influence on customer satisfaction*

### **2.3.4. Sources of switching intention**

Switching costs could be defined as the costs of switching from one supplier to another one (Porter, 1998); or the costs that the consumer incurs by changing one service provider to another (Lee, Lee, & Freick, 2001), including costs in monetary terms, the psychological costs of facing a new service provider and the time and effort involved in shifting supplier or service (Dick & Basu, 1994; Kim et al., 2004). In the present study we have conceptualized switching costs as any factors which make it more difficult or costly for customers to shift service providers; including the sum of economic, physical and psychological costs.

Switching costs have been considered as a relevant factor influencing customer retention, since they explain why customers decide to stay with their current service provider, even though they are not satisfied (Vazquez-Carrasco & Foxall, 2006). Switching costs face the uncertainty of dealing with a new service provider, and consequently they make it costly for the customer to switch (Deng et al., 2010).

Regarding the mobile services industry, switching costs refer to the difficulty in switching to another mobile service provider, which is encountered by customers who



are not satisfied with their current providers (Kim et al., 2004). Despite some customers may not feel any satisfaction toward their mobile service, they do not wish to terminate the contractual relationship due to the switching costs (Gerpott et al., 2001). That is, when switching barriers are substantial or the switching process painful, customers remain in relationships with service providers even if not satisfied (Lu et al., 2011). Thus, the higher the switching barriers, the more a customer is forced to stay with the current service provider, and the less the likelihood of the customer defecting (Jones et al., 2000; Lu et al., 2011).

Accordingly, due to the high costs of attracting new customers and the infeasibility of satisfying every customer, mobile service companies raise different barriers to encourage customer retention: increasing switching costs or developing new alternative ties to customers -such as the *lock-in contracts*-, in an effort to lock customers into an existing contractual relationship with a service provider (Lu et al., 2011).

#### **2.3.4.1. Sector knowledge**

According to Sharma and Patterson (2002), customers often face a considerable risk in switching to an alternative service provider, because it is difficult to evaluate a service before actually contracting it. So, when customers have a broad knowledge on the type of services provided and the operators competing in the marketplace it becomes easier to switch from provider to another one. More specifically, customers must secure an alternative before changing service provider; and thus, they need to spend time and effort in order to look for an acceptable alternative provider (Jones et al., 2000). Consequently, the prior knowledge of the alternatives and options available, substantially reduces this switching barrier, increasing the likelihood that customers engage with alternative providers.

Before switching provider, customers spend time and effort to obtain information and evaluate the various alternatives (Lee et al., 2001); and this switching barrier is reduced when customer has experience and knowledge about the sector and the competing alternatives available. In addition, consumers who have a high level of

knowledge on the product or service, have a greater ability to evaluate alternatives, acquire and process information and consequently make consumption decisions better suited to their needs (Bell, Auh, & Smalley, 2005). In the present study, we assume that consumers with a high level of sector knowledge are better informed about competitors; and thus, they may think that other mobile service companies would have been good options. So, the following research hypothesis is posed:

*H<sub>2</sub>: The sector knowledge has a positive influence on switching intention*

#### **2.3.4.2. Attractiveness of alternatives**

The attractiveness of alternatives is conceptualized as the customers' estimate of the likely satisfaction available in an alternative service relationship (Sharma & Patterson, 2000; Patterson & Smith, 2003). Following Kim et al. (2004), the attractiveness of alternatives means the service quality, image and reputation of the replacing services' providers, which are expected to offer more suitable or superior services than those of the current provider. In the present study, we follow the conceptualization proposed by Vazquez-Carrasco and Foxall (2006), and thus, assume the attractiveness of alternatives as the customers' perceptions of the extent to which viable competing alternatives are available in the marketplace.

In the mobile services sector, competing companies encourage customers to switch by offering higher service quality and corporate or brand image (Lu et al., 2011). Comprehensively, when customers are either unaware of the attractive alternatives or simply do not perceive them as more attractive than their current provider, they are likely to remain with their current service relationship (Lu et al., 2011). And according to Lam, Shankar, Erramilli and Murthy (2004) customers' perception of the difficulty in finding an alternative service or the lack of attractive alternatives, will increase the likelihood that the customer will continue with the current service provider. Thus, we assume a positive relationship between the presence of attractive alternatives in the marketplace and the customer switching intention. Thus, the following research hypothesis is posed:

*H<sub>3</sub>: The attractiveness of alternatives has a positive influence on switching intention*

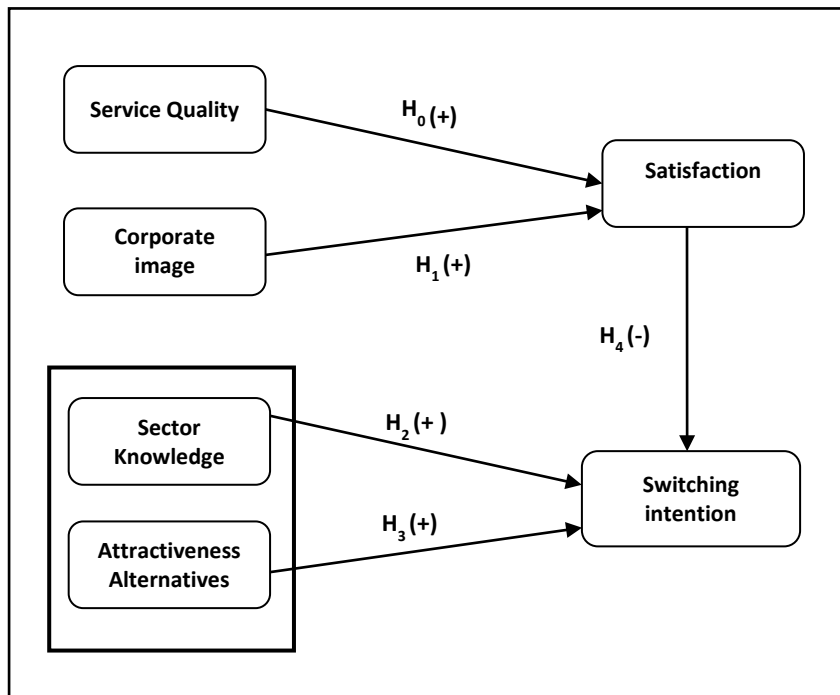
#### **2.3.4.3. Relationship between customer satisfaction and switching intention**

Customer satisfaction could be conceptualized as an experience-based overall evaluation made by the customer based on whether his overall expectations on the services obtained from a provider have been fulfilled (Parasuraman et al., 1998). According to Eshghi, Haughton, & Topi (2007), customer satisfaction can also be defined as the qualitative perception based on the assessments of customers referring to their consumption experiences. More precisely, in the mobile services sector, customer satisfaction reflects the degree of a customer's positive evaluations and experience with a mobile services' provider (Deng et al., 2010). So, in the present study, we define customer satisfaction as the total consumption perception of customers when using a mobile service provider. Customer satisfaction with mobile communication services has been related with the call quality, the good value for money, customer services and convenient procedures (Lee et al., 2001), along with the mobile provider meeting customers' needs (Gerpott et al., 2001).

On the other hand, customer switching intention could be defined as the exit or the customer decision to terminate the contract with a particular service company (Stewart, 1998). In the mobile services industry, customer satisfaction positively influences customer retention, while negatively affects customer switching intention (Gerpott et al., 2001; Kim & Yoon, 2004; Walsh, Dinnie, & Wiedmann, 2006). So, when a customer feels dissatisfied with one service provider because of low service quality or poor service experience, he will be much more likely to change provider (Deng et al., 2010). Following Deng et al. (2010), customer satisfaction is a direct determining factor in customer retention, while negatively influences switching intention (Walsh et al., 2006). So, once a customer is dissatisfied with a service provider, he will be much more likely to change to another one (Deng et al., 2010). Therefore, we propose the following research hypothesis:

*H<sub>4</sub>: Customer satisfaction has a negative (inverse) influence on switching intention*

Figure 1. Conceptual proposed model



## 2.4. Methodology

### 2.4.1. Sampling and fieldwork

The data were collected by a self-administered structured on-line questionnaire in March 2013 among consumers residing in Spain. Potential respondents were contacted by e-mail to participate in the study. Then, we proceeded with a random sampling among consumers, inviting them to complete the on-line questionnaire, and asking them about their own mobile service provider, in order to gather information of the specific company they have knowledge and consumer experience. Consequently, each one of the participants evaluated their own mobile services company. This procedure yielded a total of 411 completed questionnaires, obtaining a total amount of 370 valid responses comprising numerous mobile service companies, such as Movistar, Orange, Vodafone, Yoigo, Masmovil, Pepephone, Simyo, R, Yazztel and Eroskimovil.

Then, the respondents were divided into two groups. On one hand, customers with *lock-in* contracts, who subscribed a long-term contractual relationship with the mobile operator –the so called permanence commitment contracts-; and on the other hand,

customers without any minimum-term contracts, who could be terminate the subscription contract any time –the so-called *free contracts*-. Our data yielded 268 customers with lock-in contracts and 102 customers with free-contracts. The sampling error was 5.19%, with a confidence level of 95% under the hypothesis  $p=q=0.50$ , and the last part of the questionnaire contained several socio-demographic questions.

#### **2.4.2. Variables and measurement scales**

The questionnaire was developed based on a literature review on the topic. All variables were measured using the classic Likert-type 1-5 point scale, asking participants to indicate their level of agreement or disagreement with a series of statements. The *service quality* was measured by three items adopted from Kuo, Wu and Deng (2009) to assess customers’ perception of the service quality. Second, we used three items to measure the *corporate image*, adopted from Deng et al. (2010) and Bigné, Sanchez-García and Currás-Perez (2011). For measuring *sector knowledge*, we used three items proposed by Sharma and Patterson (2000) and Bigné et al. (2011). The *attractiveness of alternatives* was measured by adopting a 3-item scale proposed by Jones et al. (2000) and Bigné et al. (2011). Regarding *customer satisfaction*, we considered two items adopted by Kuo et al. (2009). Finally, the customer *switching intention* was measured on a 2-item scale adopted from Jones et al. (2000) and Bansal, Taylor and James (2005).

**Table 1.** Variables and indicators

CONSTRUCT	INDICATORS
Service Quality Kuo et al. (2009)	QAL1: The company’s service offered is of high quality QAL2: My company offers me a good quality-price relationship QAL3: My company gives me the service that I expect from a mobile services company
Corporate image Deng et al., (2010); Bigné et al. (2011)	CI1: My company has a good image among consumers CI2: My mobile services company is reliable and trustworthy CI3: This company has a good image, compared to other mobile services companies
Sector knowledge Sharma & Patterson (2000), Bigné et al. (2011)	KNOW1: I have a vast knowledge about the mobile services’ providers KNOW2: I am informed and keep updated about the price deals and promotions offered by mobile services companies
Attractiveness of alternatives Jones et al. (2000), Patterson & Smith (2003)	ATR1: Probably, I would be also satisfied with another company ATR2: If I needed to change service company, there are other good companies to choose from. ATR3: If I had contracted the service with another company, I would be equally satisfied

CONSTRUCT	INDICATORS
Customer Satisfaction Kuo et al. (2009)	SAT1: I feel satisfied with the services provided by my company SAT2: So far, my mobile services' company has satisfied my expectations
Switching intention Jones et al. (2000), Bansal et al. (2005)	SWIT1: I have the intention of switching my mobile services' company SWIT2: I regret to have subscribed contract with this company

*Source: Own Elaboration*

## **2.5. Results**

### **2.5.1. Measurement model**

Structural equation providing a confirmatory factor analysis and showing a clear factorial structure for constructs modeling was carried out in order to analyze the proposed model with Amos. We developed a two-step modeling approach following Anderson and Gerbing (1988). The measurement model was tested by confirmatory factor analysis (CFA), and the model was evaluated on internal consistency, reliability, convergent validity and discriminant validity (Table 2). The level of internal consistency for each construct was acceptable, with Cronbach's alpha estimates ranging from 0.604 to 0.944; thus being acceptable (Anderson & Gerbing, 1988; Hair, Anderson, Tatham, & Black, 1998). In addition, we calculated composite reliability (CR) for each latent variable included in the model, obtaining estimations higher than 0.60, suggesting acceptable measurement reliabilities (Bagozzi & Yi, 1988; Hair et al., 1998). Then, we calculated the average variance extracted (AVE), that ranged from 0.506 to 0.862; thus reaching the threshold of 0.50, meaning that a good convergent validity was obtained (Fornell & Larcker, 1981). Finally, the confirmatory factor analysis shows that all factor loadings are significant, reaching the commonly used threshold of 0.60 (Anderson & Gerbing, 1988), with the exception of ATR3, thus being subject for further research. Thus, these results reflect the internal consistency of the indicators.

**Table 2.** Factor loadings, indicators of internal consistency and reliability for multi-group subsamples

CONSTRUCTS	ITEMS	LOCK-IN CONTRACTS				FREE CONTRACTS			
		Lambda	Alpha Cronbach	CR	AVE	Lambda	Alpha Cronbach	CR	AVE
Service Quality	QAL1	0.791	0.874	0.877	0.704	0.927	0.950	0.949	0.862
	QAL2	0.863				0.923			
	QAL3	0.861				0.936			
Corporate image	CIM1	0.681	0.847	0.852	0.660	0.754	0.896	0.898	0.747
	CIM2	0.837				0.859			
	CIM3	0.903				0.967			
Sector Knowledge	KNOW1	0.857	0.604	0.680	0.522	0.963	0.695	0.773	0.638
	KNOW2	0.606				0.653			
Attractiveness of alternatives	ATR1	0.927	0.704	0.713	0.506	0.882	0.807	0.815	0.599
	ATR2	0.620				0.791			
	ATR3	0.430				0.627			
Satisfaction	SAT1	0.833	0.829	0.841	0.725	0.965	0.944	0.933	0.931
	SAT2	0.870				0.964			
Switching intention	SWIT1	0.755	0.733	0.734	0.579	0.692	0.702	0.670	0.539
	SWIT2	0.766				0.774			

Convergent validity for the measurement model was supported by an adequate overall fit:  $\chi^2=143.120$ ,  $df=79$ , ( $P<0.0001$ ), comparative fit index (CFI) =0.981, goodness of fit index (GFI)=0.952, normed fit index (NFI)=0.958, incremental fit index (IFI)=0.981, root mean square error of approximation (RMSEA)=0.048 and root mean square (RMR)=0.043. These indicators support the convergent validity of the measurement model.

In order to examine discriminant validity, we calculated the average variance extracted (AVE), which should be greater than the variances shared between the construct (Fornell & Lacker, 1981). This comparison can be incorporated into a correlation matrix (Table 3), that shows the correlations between different constructs in the off-diagonal elements of the matrix, and the square roots of AVE for each construct along the diagonal. The results obtained show an adequate discriminant validity.

**Table 3.** Correlations matrix and discriminant validity

	LOCK-IN CONTRACTS						FREE CONTRACTS					
	SQ	CI	SK	AA	SAT	SWI	SQ	CI	SK	AA	SAT	SWI
Service Quality	<b>0.839</b>						<b>0.928</b>					
Corporate image	0.715	<b>0.812</b>					0.716	<b>0.864</b>				
Sector Knowledge	0.289	0.336	<b>0.722</b>				0.487	0.489	<b>0.799</b>			
Attractiveness of alternatives	-0.532	-0.518	-0.119	<b>0.711</b>			-0.535	-0.489	-0.209	<b>0.774</b>		
Satisfaction	0.776	0.712	-0.268	-0.497	<b>0.851</b>		0.750	0.724	-0.254	-0.559	<b>0.965</b>	
Switching intention	-0.668	-0.595	0.144	0.544	-0.687	<b>0.761</b>	-0.788	-0.764	0.484	0.713	-0.865	<b>0.734</b>

*Note: the bold numbers in the diagonal are the square root of the AVE*

### 2.5.2. Structural model

Structural model was supported by an adequate overall fit, according to criteria suggested by Hu and Bentler (1996), since acceptable models should have  $X^2 / df \leq 3$ , adjusted goodness of fit index (AGFI)  $\geq 0.80$ , root mean square residual (RMR)  $\leq .1$ , root mean square error of approximation (RMSEA)  $\leq 1.0$  and goodness of fit index (GFI), as well as comparative fit index (CFI) higher than 0.90. All of the fit indices indicate that the proposed model exhibits a reasonably good fit to the data (Table 4).

**Table 4.** Structural modeling adjustment indexes

ABSOLUTE FIT MEASURES						INCREMENTAL FIT MEASURES					PARSIMONY MEASURES
<i>Chi-square</i>	<i>df</i>	<i>p</i>	<i>GFI</i>	<i>RMSEA</i>	<i>RMR</i>	<i>AGFI</i>	<i>NFI</i>	<i>IFI</i>	<i>TLI</i>	<i>CFI</i>	<i>Normed Chi-square</i>
254.272	158	0.000	0.924	0.036	0.064	0.885	0.936	0.979	0.972	0.979	1.453

Source: Own elaboration

### 2.5.3. Discussion

Structural Equation Modeling (SEM) was used to test the hypothesized relationships proposed in the conceptual model. The proposed model was analyzed via the maximum likelihood estimator of Amos 18.0. The multi-group analysis was made dividing customers into two groups: customers with *lock-in* contracts, who subscribed long-term contractual relationship with the mobile operators; and customers without minimum-term contracts, who could terminate the subscription contract at any time.

The results obtained show that service quality is the dimension with higher loading on customer satisfaction ( $\beta_{15L}=0.664^{**}$ ,  $\beta_{15F}=0.724^{**}$ ) for both type of subscription contracts. So, in terms of the effect size, the mobile service quality seems to contribute the most to customer satisfaction, no matter the type of contract subscribed. Additionally, we found empirical evidence to propose a significant positive relationship between corporate image and customer satisfaction for lock-in contracts ( $\beta_{25L}=0.324^{**}$ ), so, it can be stated that the better and more favorable corporate image of the mobile services companies, the higher customer satisfaction. Nevertheless, corporate image showed not influence on customer satisfaction for free contracts



( $\beta_{25F}=0.221^{ns}$ ), since the relationships were in the expected direction, but failed to reach statistical significance.

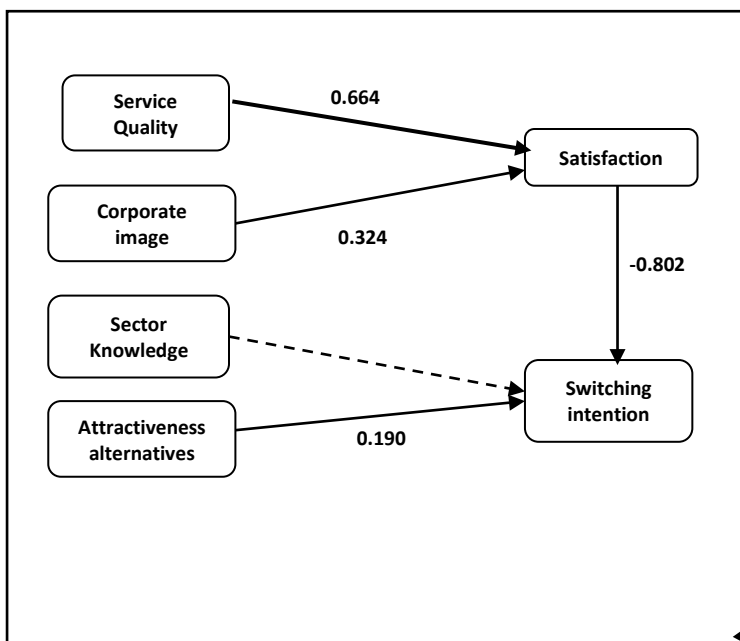
On one hand, regarding the switching costs, it should be highlighted that only one of the proposed relationships is statistically significant for both type of contracts analyzed. More precisely, the availability of attractive alternatives exerts a positive influence on customers' switching intention ( $\beta_{45L}=0.190^{**}$ ,  $\beta_{45F}=0.228^{**}$ ), showing a slight higher impact for customers with free contracts. However, the other switching cost analyzed –the sector knowledge- showed not statistical significance on switching intention for both type of contracts ( $\beta_{35L}=0.015^{ns}$ ,  $\beta_{35F}=0.097^{ns}$ ) since the relationships were in the expected direction, but failed to reach statistical significance for both variables. The reason may be either this switching cost is considered as insignificant by customers, or that customers do not have the feeling of being retained by fact of having a poor knowledge of the mobile service sector. In addition, this lack of influence of the sector knowledge could be explained by the own nature of mobile services, commonly and easily available nowadays. Moreover, the lack of influence of the mobile sector knowledge could be also explained by the fact that having more information or knowing the competing alternatives does not lead in fact to better services or offers. Finally, our findings highlight a strong significant negative relationship between customer satisfaction and switching intention ( $\beta_{56L}=-0.802^{**}$ ;  $\beta_{56F}=-0.885^{**}$ ) as initially expected.

**Table 5.** Results of the research model testing

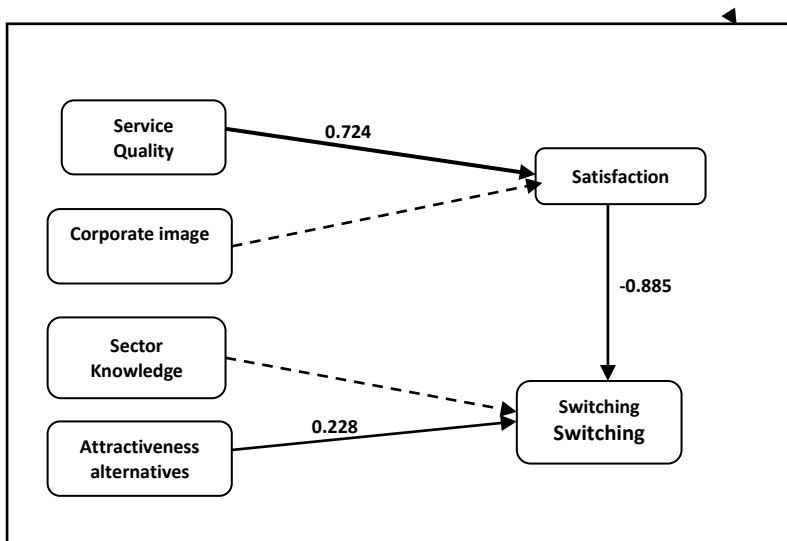
Final relationships	LOCK-IN CONTRACTS		FREE CONTRACTS	
	Standardized coefficients	Hypotheses test	Standardized coefficients	Hypotheses test
Service Quality → Satisfaction	$\beta_{15L}= 0.664^{**}$	H <sub>0</sub> : Supported	$\beta_{15F}= 0.724^{**}$	H <sub>0</sub> : Supported
Corporate image → Satisfaction	$\beta_{25L}= 0.324^{**}$	H <sub>1</sub> : Supported	$\beta_{25F}= 0.221^{ns}$	H <sub>1</sub> : No Supported
Sector Knowledge → Switching intention	$\beta_{35L}= 0.015^{ns}$	H <sub>2</sub> : No supported	$\beta_{35F}= 0.097^{ns}$	H <sub>2</sub> : No supported
Atractiveness alternatives → Switching intention	$\beta_{45L}= 0.190^{**}$	H <sub>3</sub> : Supported	$\beta_{45F}= 0.228^{**}$	H <sub>3</sub> : Supported
Satisfaction → Switching intention	$\beta_{56L}= -0.802^{**}$	H <sub>4</sub> : Supported	$\beta_{56F}= -0.885^{**}$	H <sub>4</sub> : Supported
ns=no significative ** significative (p<0.05)	$R^2_{Satisfaction}=0.896$ $R^2_{Swit\ intention}=0.831$		$R^2_{Satisfaction}= 0.866$ $R^2_{Swit\ intention}= 0.938$	

Our results provide strong support for all research hypotheses, except from H<sub>2</sub>, and H<sub>1</sub> for free contracts. Therefore, the results show a significant relationship between mobile services' quality and customer satisfaction-H<sub>0</sub>-, as well as between the attractiveness of alternatives on switching intention -H<sub>3</sub>-. Moreover, our findings support H<sub>4</sub>, highlighting the strong negative influence of customer satisfaction on switching intention. So, our findings show that four of the five initial research hypotheses are supported - H<sub>0</sub>, H<sub>1</sub>, H<sub>3</sub> and H<sub>4</sub>- for lock-in contracts; whereas three of the five research hypotheses - H<sub>0</sub>, H<sub>3</sub> and H<sub>4</sub>- are supported for the free contracts.

**Figure 2.** Final relationships (lock-in contracts)



**Figure 3.** Final relationships (free contracts)



## **2.6. Conclusions**

The aim of the present study was to examine the variables influencing customer satisfaction and switching intention in the mobile services industry. Our research model incorporated satisfaction variables, such as service quality and corporate image, and switching barriers, namely sector knowledge and the availability of attractive alternatives. Moreover, our research analyzes the differences in the formation of customer satisfaction and switching intention between two types of subscription contracts –the *lock-in contracts* and the *free contracts*-. The results presented suggest that our conceptual proposed model fits well the collected data.

One major finding is that the mobile service quality is the most important predictor of customer satisfaction, for both types of subscription contracts. More specifically, the service quality provided by mobile operators is the most important driver of customer satisfaction, being the largest effect, only followed by corporate image for *lock-in contracts*. Thus, when mobile services providers reinforce their services' quality, customer satisfaction is directly improved and the switching intention can be negatively influenced. This result is in line with Kuo et al. (2009) or Lu et al. (2011) who suggested that mobile service companies that aim to induce higher customer satisfaction should prioritize the improvement of service quality. In fact, service quality is acknowledged in literature as an antecedent which positively influences customer satisfaction (Choi et al., 2004; Turel & Serenko, 2006). So, we can state that service quality perceptions are of great importance in mobile services and that mobile operators developing a long-term competitive advantage should consider service quality as one of the key factors that should be reinforced (Turel & Serenko, 2006; Özer et al., 2013).

Secondly, the corporate image influences customer satisfaction, but only for *lock-in contracts*; thus being in line with Martensen et al. (2000), who highlighted corporate image as one main driver for customers' satisfaction in the mobile sector. One possible explanation is that once the customer has subscribed a long-term contract with a mobile operator he has a wider consumption experience; and thus, more positive and favorable impressions about the company image. Other explanation would be that the *lock-in contracts* have been subscribed with large operators or even with the

communication network operators, which traditionally have been developing stronger advertising and communication campaigns in the Spanish market, such as Movistar, Orange or Vodafone. And consequently, since service quality and corporate image are the main determinants of customer satisfaction, mobile services companies should struggle to satisfy their customers and build high quality services, along with a favorable corporate image.

Other major finding is the low influence of the switching costs on the switching intention, for both type of contracts analyzed. In fact, our results indicate stronger support for services' quality and corporate image rather than for switching costs as determinants of customer satisfaction. In the presence of low switching costs, service providers should direct their marketing strategy towards attracting new customers; that is, increasing primary demand, rather than retaining their current customers. Then, considering the low switching costs in the Spanish market, companies have great incentives to increase service quality and to lower prices, in order to retain their current subscribers and to attract new customers. Mobile operators should know that subscribers can easily switch their service providers, due to low barriers to switching. This is the main reason for the intense competition in this industry, and also explains the offering of mobile devices at a low price or even for free for customers subscribing *lock-in* long-term contracts, in an attempt of creating a new switching barrier (Lee et al., 2001). Finally, the poor influence of switching costs may be explained by the fact that customers do not have the feeling of being retained by the mobile services companies, since these services are nowadays commonly and easily available.

More precisely, only the switching barrier of the attractiveness of alternatives in the marketplace contributes to customer retention. So that the higher the attractiveness of alternatives, the greater likelihood it will drive consumers to switch their current mobile service providers. Our findings point out that consumers feel significantly lowered switching costs, more specifically, consumers feel a slight switching barrier regarding the availability of attractive alternatives. That is, customers are indeed more likely to stay with their current service provider, when the trouble of switching provider arises; and customers are more likely to switch to another mobile operator when the attractiveness of alternatives increases. Since our findings show that the

attractiveness of the alternatives available have the higher impact on customers' switching intention, for both type of contracts analyzed, mobile companies should try to reduce the attractiveness of alternatives available, such as for example developing and enhancing customized services.

Other relevant finding is that our results do not provide empirical support for sector knowledge as exerting a significant influence on customer retention. The reason may be that the vast majority of mobile users are familiar to some extent to the services provided by companies. Maybe the probable reason lies in that the cost of learning and getting informed about companies and services provided is low. Other possible reason may be that the services offered by mobile companies are quite similar; so learning and getting informed about sector characteristics does not lead to significantly better offers.

Other major finding is that our research conceptual model identifies customer satisfaction as a strong determinant of customer intention to switch mobile services' provider. This finding implies that mobile providers should better in the long term increase customer satisfaction in an attempt to minimize customers' defection, considering that customer satisfaction is one important goal for mobile service companies in achieving economic success (Deng et al., 2010). This finding is line with Eshghi et al. (2007) who confirmed that satisfied customers tend to be loyal.

So, our main conclusion is that the *lock-in contracts* constitute a short-term response to an issue that requires strategic long-term solutions; since the *lock-in contract* incentives –such as free mobile devices- are aimed at attracting new customers, as opposed to enhancing customers' satisfaction. However, considering the low switching costs, companies should increase customer satisfaction through better service quality, thus reducing the need to chase after new customers. That is, operators' efforts to lock-in customers through contracts with fixed term subscription may not reduce switching intention. In contrast, we suggest that before boosting retention rate through *lock-in contracts*, mobile companies should consider the ways and means of attracting customers, by maintaining the service quality and designing various price-based incentives and value added services. So, our findings would imply shifting

resources to customer retention through improved service quality, improving corporate image or reducing customer switching barriers.

### **2.6.1. Implications**

Derived from our findings, we propose some useful insights for company managers. Given that attracting new customers is considered more expensive than retaining current customers (Reichheld & Schefter, 2000), numerous mobile services companies are concerned about building and maintaining long-term relationships with their customers (Vazquez-Carrasco & Foxall, 2006); and for this purpose, many mobile companies build new switching barriers, such as the lock-in contracts for new customers. Nevertheless, considering that our findings highlight low switching costs in this sector, companies should focus their marketing efforts towards attracting new customers and increasing the first-time customers, rather than retaining their existing customers. In this attempt to retain their present customers, the service quality plays a key role. In fact, managers should develop effective strategies in order to maintain and further increase the quality of the service delivery to customers. That is, company managers should use service quality as a mechanism for exit barriers that will retain present customers, considering the perceived service quality as a tool for customer retention.

So, mobile companies are better off improving and enhancing customer satisfaction to minimize customer defection. For this reason, in first place managers should evaluate the core services they currently offer and whether the release of new value-added services could make customers perceive a higher service quality. Secondly, managers should seek to improve their customers' perceptions of the characteristics of the services they offer, stressing those factors that motivate customers to continue their contractual relationship. Thus, managers could develop two different strategies: on one hand improve customer services, and on the other hand communicate service quality (Shukla, 2010).

The improvement of customers' services, should include the management of customers' perception of the benefits of the mobile services, as well as the customers'

evaluation of prices charged and subscription rates. Consequently, managers should compete on value-added services, differentiating their customer service and providing further quality (Aydin & Özer, 2005). But in addition, we suggest managers to offer customer-specific discounts or price-discriminate fees, which can be made dependent on the term of contracts, or provided to the lock-in contracts exclusively. Additionally, mobile companies should manage to communicate these customer-specific discounts. Therefore, customer satisfaction programs, accomplished by service quality delivered, could be effective in increasing customer retention for all type of subscription contracts. Finally, the improvement of the corporate image is also required, since it showed a slight influence on customer satisfaction for lock-in contracts. Consequently we suggest mobile companies' managers to enhance a corporate image that consumers are aware of and with which consumers have strong and favorable associations.

### **2.6.2. Research limitations and future research guidance**

This research has several limitations which also provide possible avenues for future research. First, although a comprehensive conceptual model was tested in this study, our research focused on one single sector –the mobile communication services-, suggesting the need for comparing multiple service sectors. Second, it can be argued that more variables influence customer satisfaction and switching intention such as trust or services' pricing. Third, further research could attempt to make a cross-national study in order to examine results in mobile services across countries. Other limitation of this study is that the empirical research was carried out in one single country, focusing on a European mature marketplace. Finally, further studies might develop a comparative analysis of a low-competition market, such as an oligopoly industry, and a high-competition market, such as for example a perfectly competitive industry, in order to obtain a deeper understanding of customers' satisfaction and switching intention. Consequently the present study provides a limited empirical application, and although its reports interesting results, caution must be exercised when generalizing results.

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## **Chapter 3 - Customer satisfaction with digital content: an approach to consumption through mobile devices**

### **3.1. Abstract**

**Introduction:** Despite the growth and commercial potential of digital content, little is known about what factors engage and make customers satisfied with a particular content, such as entertainment, information or sports.

**Purpose:** Based on the flow theory, the present study develops and empirically tests a conceptual model on the creation and the consequences derived from consumer satisfaction with digital content.

**Methodology:** For this purpose, drawing on a sample of 750 consumers, we developed Structural Equation Modeling (SEM) analysis.

**Findings:** This study found that users experience an impact on their satisfaction with digital content from the perceived ease of use and content characteristics. More precisely, our findings suggest that the ease of use is one of the key determinants of consumer satisfaction, while user loyalty, engagement and word of mouth are the main consequences. In addition, our results showed a no significant influence of free access on users' satisfaction.

**Implications:** Our findings would imply shifting resources to enhance users' engagement through the flow experience, by providing highly interesting up-dated content.

**Keywords:** *Digital content, Satisfaction, Engagement, Interaction, Flow experience.*

### **3.2. Introduction**

The digital online content business has emerged as an important new industry in the 21<sup>st</sup> century. In the last years, with the proliferation of internet and mobile communication technologies in everyday life, adoption of digital content has been broadly extended. So, with wi-fi internet access and the broad popularization of mobile devices, consumers can access the internet and use all the content available online anywhere and anytime of the day or night, watching interactive digital tv movies, series, news, videos, listening to music, social networking, playing video games, chatting or any combination of those activities. Thus, consumers have enjoyed consuming digital content on a growing number of devices, either for entertainment or for information-centric activities. In the present research we focus on using digital content through mobile devices or platforms, considering any content available through the mobile, as well as on smartphones, or pads. More specifically, the focus of this study centers on content consumer behavior, aiming to shed some light on one interesting question: *“What makes the audience satisfied with a digital content?”*.

Digital content is of special academic interest because it is a novel technological phenomenon relatively unexplored in previous research. However, only few studies have focused on digital content and the creation of on consumer satisfaction, engagement and interaction. More precisely, none of the previous studies focused on the analysis of how consumer would be more satisfied and engaged with content provided by media. In this context, the present study aims to analyze the variables affecting consumer satisfaction with digital content, as well as the consequences derived from consumer satisfaction. Our study focuses on mobile devices for using content -from smartphones, to mobile devices or even pads-, to analyze how consumer satisfaction stems from. More precisely, the main goal of the present study is to unveil factors that play an important role in consumer satisfaction with digital content.

The contribution of this paper is twofold. On one side, we analyze the sources and consequences of consumer satisfaction with digital content; and on the other side, we develop a conceptual model on digital content satisfaction, while empirically testing it in a context of an European mature market. For this purpose, we develop a conceptual research model, including variables for the examination of the creation of consumer

satisfaction with digital content and its consequences. That is, this study investigates how consumers' satisfaction is created when using and consuming media digital content, with a focus on what factors derive from satisfaction.

This study is structured as follows. First, we present the variables, the research hypotheses and the structural model proposed. Then, the methodology is described, and finally the findings are discussed and some implications and future research guidance are provided.

### **3.3. Literature review and research hypotheses**

#### **3.3.1. The flow experience with media content**

The concept of flow, developed by Csikszentmihalyi (1990), represents the state in which individuals are so involved in an activity that nothing else seems to matter. Thus, the state of flow is characterized by a narrowing of the focus of awareness, so that irrelevant perceptions and thoughts are filtered out, by loss of self-consciousness, by responsiveness to clear goals and by a sense of control over the environment (Csikszentmihalyi, 1977). According to the flow theory (Csikszentmihalyi, 1993), when individuals feel the flow of a certain experience, they tend to continue the activity; however, if individuals are not *in the flow*, they feel irritated or bored and try to escape from the current experience. Thus, the flow is experienced by people who are deeply involved in an enjoyable activity (See-To et al., 2012).

In recent years, diverse adaptations of the flow experience have been widely adopted in technology and internet research. Numerous authors have pointed out that media content need to be deeply considered requiring an examination of the creation of the flow experience through the use of digital content (Kim et al., 2009). In fact, users of digital content become absorbed emotionally by the contents. So, the flow experience has arisen as a key variable to understand consumers' content consumption behavior (Novak et al., 2000), since a good and favorable user experience will lead to higher levels of satisfaction and engagement (See-To et al., 2012). In addition, the flow is a key variable to establish long-term, successful relationships, and to acquire ongoing relationships with consumers in the digital-content marketplace (Sharafi et al. 2006; Kim et al. 2009). So, when customers experience flow, they will often use, download

and interact with content, and also tend to become more loyal users (Csikszentmihalyi, 1993; Benlian and Hess, 2007). Consequently, in the present study we propose that consumer satisfaction positively influences engagement with content; that is, the users' experience and satisfaction will determine their engagement with content.

### **3.3.2. Sources of consumer satisfaction with digital content**

In the contemporary developed countries consumers have numerous choices in terms of content use, such as diverse media devices -ranging from digital TV, personal computers, smartphones or mobile devices- and for each device there are multiple different contents available. Therefore, individuals are likely to make use of multiple sources of and devices for information and entertainment. So, it raises an interesting question: how individuals use and consume multiple content, considering the interactions and engagement with the specific content.

Following Parasuraman et al. (1998) customer satisfaction could be conceptualized as an experience-based overall evaluation made by consumers, based on whether their overall expectations on services obtained from a provider have been fulfilled. Moreover, consumer satisfaction refers to consumers' overall evaluation of their consumption experience (Johnson and Fornell, 2001). Accordingly, in the present study customer satisfaction is defined as the total consumption and use perception of consumers overall experience when using and interacting with content. In addition, the authors assume that customer satisfaction with content refers to how well the content satisfies the various needs or desires of users. To substantiate the conceptual proposed model and to selection the research variables, we conducted a systematic review of the literature on the topic. Then, as sources of user satisfaction we selected three main variables, namely the characteristics of the content, the free access and the ease of use.

#### **3.3.2.1. Content**

Digital content is defined as the information and experiences that provide value for customers (Kim et al. 2009), understood as a combination of design and structural elements such as sound, music, text, images and videos, which can be accessed by



consumers through wired and wireless digital media. Today, individuals are generally motivated to use digital content for their basic social and psychological needs, such as information, personal identity, integration, social interaction and entertainment (McQuail, 1987). In addition, users become more deeply engaged with content as they see the high relevance of an object associated with their inherent needs, interests and values (Zaichkowsky, 1985). In this vein, content could be defined as an individual's assessment of credibility, timeliness, relevance and sufficiency of information offered by a content provider (De Wulf et al., 2006).

According to Calder et al. (2009) content could engage users and satisfied them, because users have and utilitarian experience with it; that is, consumers believe that the content provides them with useful information. On the other hand, content can satisfy users because it provides them with an enjoyable experience. So, an exciting and interesting content may provide greater user satisfaction (Jung et al., 2009). Consequently, this study considers content characteristics as an antecedent of customer satisfaction; since content has been reported as a significant predictor of positive and favorable user responses, such as satisfaction (De Wulf et al. 2006). And more specifically, the authors assume that when content is diverse, updated and providing information, consumers' satisfaction would increase. So, the following research hypothesis is posed:

*H<sub>0</sub>: Diverse and updated digital content has a positive influence on consumer satisfaction*

### **3.3.2.2. Free access**

The free access variable looked into the relation to the perceived cost and the perceived value for using and interacting with digital content. The perceived cost is defined as an indicator of the degree of the willingness to pay actual monetary fees, being a determinant factor influencing the adoption and use of content and new technology platforms and devices (Kim et al., 2007). While perceived value is defined as the consumers' net gain or trade-off from acquiring products or services (Grewal et al., 1998). Previous research notes that perceived cost is directly related to perceived value. More specifically, the perceived value provided by content, is strongly

associated to the perceived price that needs to be paid in the form of a subscription or usage fee (Chang and Wildt, 1994; Kim et al., 2007). Therefore, the perceived cost of content is negatively related with its value; and previous research demonstrates that cost saving is a perceived benefit (Verhagen et al., 2012).

So on one hand, content providers and media companies rely heavily on subscriptions to generate revenue; and more specifically, consumers' propensity to abandon pay platforms to use free or less expensive media content platforms can critically threaten these companies (Cha, 2013). And on the other hand, consumers are unwilling to pay a fee or subscription for content, despite the current users and potential user groups perceive the exceptional values provided by content (Lee et al., 2010). Moreover, a research conducted in Europe in year 2006 by Tellabs showed that among the drop-off people, price was the main issue. Finally, according to Markus (1987), it is mainly the usage fees that influence universal access and content consumption. In the present study, the authors assume that when content is provided by free, such economic value gives the user a satisfactory experience, increasing the obtained utility and enhancing users' satisfaction. Thus, we propose the following hypothesis:

*H<sub>1</sub>: The free access has a positive influence on consumer satisfaction*

### **3.3.2.3. Ease of use**

The ease of use is conceptualized as the extent to which an individual believes that using some technology will be free of effort; and additionally, the term *ease* is defined as freedom from difficulty or great effort (Davis, 1989). The users' perceived ease of use is a key variable in accepting platforms and content which require time and effort, since when users perceive a higher ease of use, they have a stronger attitude for adoption and show stronger behavioral intentions (Liao et al., 2007).

Considering that digital content platforms have different characteristics –for example, online platforms require more effort and know-how on the part of users-, this often results in users having to engage in activities such as searching, storing or uploading the content they want, and such activities can be considered laborious by inexperienced users (Cha, 2013). However, consumers show a strong desire for speed and simplicity

with rapid and direct access to content (Tseklevs et al., 2011). So, consumers most favored simple and easy content which facilitated rapid access with minimum effort and fuss. Consequently, the added complexity of multiple media sources and access mechanisms makes this requirement increasingly difficult to satisfy.

Therefore, content and content platforms which are perceived as easy to use and to understand, will be associated with saving effort. So, when users engage in interacting or using content, they may be motivated and willing to perform the use or interaction in an efficient way, with minimum effort. In the present study, the authors assume that when users perceive that they have the ability to successfully interact with digital content, that is, easily and without difficulties and effort, they will feel more positive and satisfied. That is, the easier it is for an individual to interact and use digital content, the more satisfied the consumer will be. Then, based on the findings from previous studies, the following research hypothesis is posed:

*H<sub>2</sub>: The ease of use has a positive influence on consumer satisfaction*

### **3.3.3. Consequences of customer satisfaction with media content**

#### **3.3.3.1. Loyalty**

Consumer loyalty could be conceptualized as the consumers' repurchase of a certain product or service (Oliver, 1997). Accordingly, the present study conceptualizes loyalty as the consumer intention to continue using and interacting with media digital contents he likes. Previous research demonstrates that satisfaction an important antecedent of consumer loyalty, suggesting that consumer loyalty is achieved through the enhancement of satisfaction (Turel and Serenko, 2006). More specifically, in the content industry, satisfaction has been shown as a key variable for continued usage of content (See-To et al., 2012). Thus, the present study assumes that a high level of satisfaction is strongly associated with increased consumer loyalty. So, the following research hypothesis is posed:

*H<sub>3</sub>: Consumer satisfaction has a positive influence on loyalty*

### **3.3.3.2. Engagement**

The concept of consumer engagement has emerged in the marketing literature only relatively recently as a multi-dimensional variable (Brodie et al., 2011; Hollebeek, 2011; Hollebeek et al., 2014). According to Hollebeek et al. (2014) consumer engagement is conceptualized as consumers' positive cognitive, emotional and behavioral activity during or related to focal consumer or object interactions. In addition, consumer engagement could be conceptualized as the psychological state that occurs due to interactive, co-creative consumer experiences with an agent or object; highlighting the recognition of consumers as active, rather than passive individuals (Brodie et al., 2011). Among the diverse engagement concepts, in the present study we employ cognitive concentration, which is defined as the extent to which an individual attention is absorbed by one activity (Hoffman and Novak, 1996). More precisely, cognitive concentration -or *flow experience*- with media content is conceptualized as the holistic sensations that individuals feel when they act with total involvement (Csikszentmihalyi, 1993). The cognitive concentration is not only conceptually identical to *flow* concept, but also has been widely and commonly used as flow experience in prior research (Csikszentmihalyi, 1997). Consequently, the cognitive concentration is assumed to have a key role in the users' perception of entertainment and information content.

Regarding engagement with media content, See-To et al. (2012) note that engagement occurs when an individual is immersed in a content, referring to the perceptual focus and the avoidance of stimuli that do not belong to the content, such as for example, the users' unrelated own cognitions or external cues that undermine this experience. Considering that consumer engagement is related to the notion of being connected with *something*, the key insight is that engagement comes from experiencing some content in a certain way (Calder et al., 2009). Consequently, users who are engaged become so involved with interacting with content, losing track of time and enjoying the excitement of pleasure and curiosity (Jung et al., 2009). In this vein, media digital platforms providing content can effectively engage users who tend to search for information more extensively, and also explore new stimuli for higher interaction with the content (Jung et al., 2009; Reyhav & Wu, 2015).

Finally, a key variable for user engagement is the affective evaluation of the content, which is associated to satisfaction (See-To et al., 2012). Therefore, in the present study we expect that cognitive concentration – the consumer *engagement*- will be a relevant consequence of content use and interaction, related to the user satisfaction. So, the following research hypothesis is posed:

*H<sub>4</sub>: Consumer satisfaction has a positive influence on customer engagement*

### **3.3.3.3. Word of mouth**

According to Arndt (1967) word of mouth is conceptualized as interpersonal communication concerning the evaluation of products or services. More precisely, word of mouth is defined as a process in which consumers or users who have used a certain product or service pass their experiences through *word of mouth* to other consumers planning to purchase similar products or services (Westbrook, 1987; Boulding et al., 1993). In fact, consumers today can easily share their purchase experience and their valuable consumption information with others, and also incorporate information from other consumers into their purchase decisions, especially since social network are available for consumers in online platforms. In comparison with external marketing strategies –such as advertising or sales promotions-, word of mouth is more influential to consumers' attitude and in consumption behavior (Harrison-Walker, 2001); since consumers who have not experienced the product or service may usually rely on word of mouth to acquire information. Moreover, positive and favorable word of mouth communication is regarded as an effective tool in the promotion of sales, given that it is one of the most influential sources of market information for customers (Dellarocas, 2003). Finally, consumers with high level of satisfaction tend to have stronger intention to recommend the product or service (Zeithaml et al. 1996). So, we present the following hypothesis:

*H<sub>5</sub>: Consumer satisfaction has positive influence on word of mouth*

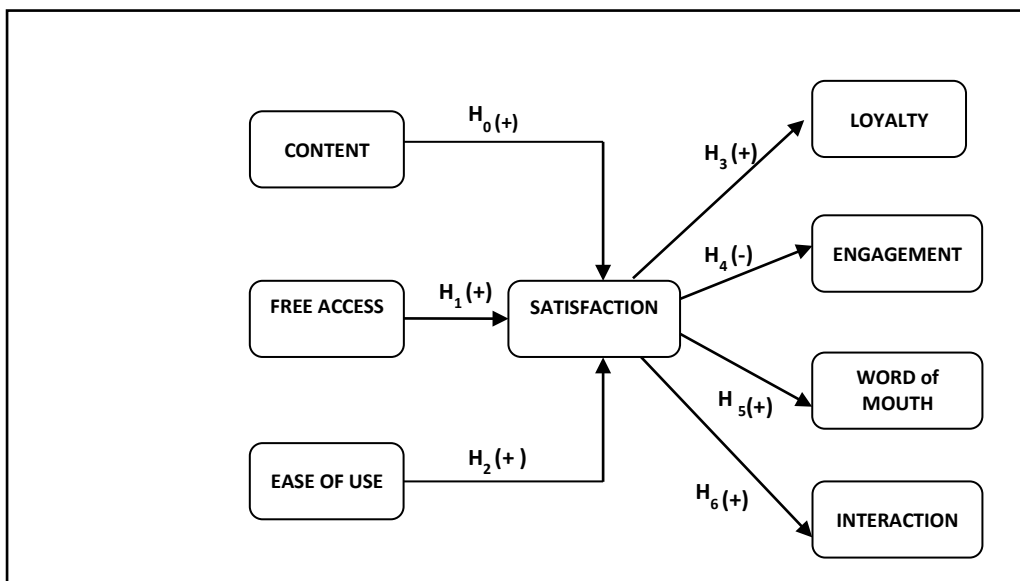
### 3.3.3.4. Consumer interaction

Consumer interaction is related with the internet-based applications which allow the creation and exchange of consumer-generated content, including social media such as Twitter or Facebook (Boyd and Ellison, 2008). In fact, the internet is considered to be a social tool, because it can be used for sharing information and experiences, and for communicating among users; and consequently internet user interaction breeds social interaction (Rappaport, 2007). Moreover, the online experience with content is thought to be more active, participatory and interactive than the offline (Calder et al., 2009). In this context, providing access to digital content and facilitating communication, the internet and social media may connect consumers, fostering consumer interaction (Laer et al., 2013).

Therefore, the value of entertainment, information or any other type of content resides not only in the content itself, but also in the consumers' interaction with the media; that is, in their personal or shared experience with that content (See-To et al. 2012). So, the authors assume that consumer interaction –users comments and participation in online social platforms- will be a consequence of satisfaction with content. Thus, the following research hypothesis is posed:

*H<sub>6</sub>: Customer satisfaction has positive influence on customer interaction*

**Figure 1.** Conceptual proposed model



### **3.4. Methodology**

#### **3.1. Sampling and fieldwork**

The study was conducted in Spain for two reasons. First, because this country represents an European mature market; and second, because of the high penetration rate of internet -85% in year 2014-. More precisely, approximately 85% of Spanish consumers use and consume digital contents, and most of them –the 60%- are in the age group of 16-35 years old. For this reason, this age group was selected for the study, considering that results obtained would be representative to a certain degree of the population.

We designed a formal questionnaire and then we requested professors and teachers to let us distribute the questionnaire in their classes, and retrieve them after participants have collectively completed their answers. The authors conducted the survey in April 2015, and the data collection process lasted three weeks. Before the survey, we explained the purpose of the study to the participants, and assistance was provided during the survey in order to minimize invalid responses. Finally, a total of 830 questionnaires were distributed, and the response rate was 90.36 %. Excluding the respondents not in the selected age group -16 to 35 years old-, a total amount of 750 valid questionnaires were collected. The sampling error was 3.58%, with a confidence level of 95% under the hypothesis  $p=q=0.50$ , and the last part of the questionnaire contained several socio-demographic questions.

#### **3.2. Variables and measurement scales**

Each construct was measured by multiple scale items adapted from previous literature for the research context, using a 5-point Likert scale ranging from 1=strongly disagree to 5=strongly agree. So, each participant was required to indicate their level of agreement or disagreement with a series of statements. Regarding the variables used for the study, the *content* were measured by three items adopted from De Wulf et al. (2006) to assess content characteristics such as its diversity, up-to-date and information utility. Secondly, we used two items to measure content *free access*, adopted from Lee et al. (2010). For measuring the content *ease of use*, we adapted

two items proposed by Davis (1989) and Wu and Wang (2005). Consumer *satisfaction* was measured by adopting two items initially proposed by See-To et al. (2012). The consumer *loyalty* was measured by adopting a 2-item scale proposed by Davis (1989). Regarding *consumer engagement*, we considered three items adopted by Ghani and Deshpande (1994), Koufaris (2002) and See-To et al. (2012); whereas consumer *word-of-mouth* was measured by adapting a 2-item scale proposed in previous research by Gremler and Gwinner (2000). Finally, consumer *interaction* was measured on a 2-item scale adopted from Holebeek (2011).

**Table 1.** *Variables and indicators.*

<b>CONSTRUCT</b>	<b>INDICATORS</b>
<b>Content</b> De Wulf et al. (2006)	CONT1: The content offered and available is up-to-date CONT2: The content offered is diverse and sufficient CONT3: The content offered allows me to get informed
<b>Free Access</b> Lee et al. (2010)	FREA1: Companies should reduce or eliminate subscription fee for accessing to contents FREA2: I would rather have free access to contents, instead of paying a subscription fee.
<b>Ease of use</b> Davis (1989); Wu and Wang (2005)	EOU1: Media digital content is very easy to use EOU2: Learning to use and interact with media digital content is easy for me
<b>Satisfaction</b> See-To et al. (2012)	SAT1: I am satisfied with the experience in watching media digital content SAT2: The contents I use meet my needs and expectations
<b>Loyalty</b> Davis (1989)	LOY1: I will continue using media digital content LOY2: I expect my use of media digital content to continue in the future
<b>Engagement</b> Ghani and Deshpande (1994); Koufaris (2002), See-To et al. (2012)	ENG1: When using content, I am usually absorbed intensely in the activity ENG2: When using content, I concentrate fully on the activity ENG3: During using content, I am deeply engrossed in the activity
<b>Word of mouth</b> Gremler and Gwinner (2000)	WOM1: I often recommend the media contents I like to my friends and relatives WOM2: It is likely that I would recommend to my friends and relatives to use the contents I like
<b>Interaction</b> Holebeek (2011)	INTER1: I share information and my comments online on the content I use INTER2: When using contents, I like comparing and exchanging my experiences with other users in social media postings

Source: Own Elaboration

### 3.5. Results

#### 3.5.1. Measurement model

We tested the measurement model by running confirmatory factor analysis (CFA) with the maximum likelihood estimation using Amos 18.0. Then, the model was evaluated on internal consistency, reliability, convergent validity and discriminant validity (Table 2).



First, the confirmatory factor analysis showed that all factor loadings are significant, reaching the commonly used threshold of 0.60 (Anderson and Gerbing, 1988), with the exception of FREA1, thus being subject for further research. The reliability of the measurement items was examined by calculating Cronbach's alpha values, as well as composite reliability (CR) and the average variance extracted (AVE). It is suggested that Cronbach alpha should exceed 0.6 and AVE should be 0.5 or higher (Fornell and Larcker, 1981) to indicate an adequate reliability. Cronbach Alpha's surpassed the threshold values for reliability (Hair et al., 1998), with Cronbach's alpha estimates ranging from 0.589 to 0.872. In addition, our results show that all values of the average variance extracted (AVE) are well above the 0.5 threshold, as suggested by Anderson and Gerbing (1988) and Hair et al. (1998); thus, confirming the validity and reliability of the measures. Then, we calculated composite reliability (CR) for each latent variable included in the model, obtaining estimations higher than 0.60, suggesting acceptable measurement reliabilities (Bagozzi and Yi, 1988; Hair et al., 1998). Thus, these results reflect the internal consistency of the indicators.

**Table 2.** *Factor loadings and indicators of internal consistency and reliability.*

CONSTRUCTS	ITEMS	MEDIA CONTENT			
		Lambda	Alpha Cronbach	CR	AVE
Content	CONT1	0.787	0.781	0.791	0.563
	CONT2	0.837			
	CONT3	0.609			
Free Access	FREA1	0.461	0.589	0.645	0.506
	FREA2	0.887			
Ease of use	EOU1	0.665	0.664	0.614	0.543
	EOU2	0.667			
Satisfaction	SAT1	0.751	0.675	0.639	0.573
	SAT2	0.658			
Loyalty	LOY1	0.874	0.875	0.875	0.778
	LOY2	0.889			
Engagement	ENG1	0.799	0.743	0.763	0.521
	ENG2	0.752			
	ENG3	0.619			
Word of mouth	WOM1	0.841	0.872	0.873	0.776
	WOM2	0.919			
Consumer interaction	INTER1	0.772	0.794	0.801	0.670
	INTER2	0.854			

One criterion for evaluating discriminant validity is that the variance shared between the construct and its indicators should be larger than the variance shared between the

construct and other constructs (Fornell and Larcker, 1981). That is, the square root of the average variance extracted (AVE) of the construct should exceed the inter-correlation among the constructs in the model (Fornell and Larcker, 1981). So, the correlation matrix presented in Table 3, shows that the square roots of AVE on the diagonal are greater than the corresponding off diagonal inter-construct correlation. Consequently, the discriminant validity of all factors is supported.

**Table 3.** Means, standard deviations and correlations among variables

	MEAN	SD	CONT	FA	EU	SAT	LOY	ENG	WOM	INTR
CONT	3.60	1.085	<b>0.750</b>							
FA	4.19	1.049	0.112	<b>0.711</b>						
EU	4.315	0.883	0.287	0.376	<b>0.737</b>					
SAT	3.67	0.958	0.371	0.286	0.587	<b>0.757</b>				
LOY	4.175	0.938	0.146	0.316	0.490	0.539	<b>0.882</b>			
ENG	3.47	1.010	0.183	0.086	0.295	0.463	0.445	<b>0.722</b>		
WOM	3.925	1.031	0.145	0.216	0.402	0.404	0.458	0.336	<b>0.881</b>	
INTR	3.075	1.268	0.041	0.05	0.086	0.115	0.148	0.215	0.336	<b>0.819</b>

Note: Square root of AVE in bold of each of the constructs presented on the diagonal.

### 3.5.2. Structural model

A set of fit indices were used to quantify the degree of overall model fit: Normed Chi-square (CMIN/DF), Goodness of Fit Index (GFI), Root Mean Square Error of Approximation (RMSEA), Normed Fit Index (NFI); Tucker-Lewis Index (TLI) and Comparative Fit Index (CFI). These model fit indices are particularly valuable to evaluate the model overall fit (Hair et al., 1998). According to criteria suggested by Hu and Bentler (1996), acceptable models should have  $X^2 / df \leq 3$ , adjusted goodness of fit index (AGFI)  $\geq 0.80$ , root mean square residual (RMR)  $\leq 0.1$ , root mean square error of approximation (RMSEA)  $\leq 0.1$  and goodness of fit index (GFI), as well as comparative fit index (CFI) higher than 0.90. Our results show that the proposed model exhibits a reasonably good fit to the data (Table 4).

**Table 4.** Structural modeling adjustment indexes

ABSOLUTE FIT MEASURES						INCREMENTAL FIT MEASURES					PARSIMONY MEASURES
Chi-square	df	p	GFI	RMSEA	RMR	AGFI	NFI	IFI	TLI	CFI	Normed Chi-square
292.993	125	0.000	0.958	0.042	0.053	0.943	0.937	0.963	0.954	0.963	2.344

Source: Own elaboration

### 3.5.3. Discussion

Our results provide strong support for all research hypotheses, except from H<sub>1</sub>. Therefore, our findings show that six out of the seven initial research hypotheses are supported - H<sub>0</sub>, H<sub>2</sub>, H<sub>3</sub>, H<sub>4</sub>, H<sub>5</sub> and H<sub>6</sub> -; whereas one of the proposed research hypotheses – H<sub>1</sub> - was not supported, since we do not find empirical support for the free access to digital content as positively influencing on consumer satisfaction.

**Table 5.** Results of the research model testing

Path	DIRECT EFFECTS (standardized coefficients)	t values	HYPOTHESES TEST
Content → Satisfaction	$\beta_{14} = 0.142^{**}$	3.107	H <sub>0</sub> : Supported
Free Access → Satisfaction	$\beta_{24} = 0.081^{ns}$	1.640	H <sub>1</sub> : No supported
Ease of Use → Satisfaction	$\beta_{34} = 0.640^{**}$	8.647	H <sub>2</sub> : Supported
Satisfaction → Loyalty	$\beta_{45} = 0.702^{**}$	14.137	H <sub>3</sub> : Supported
Satisfaction → Engagement	$\beta_{46} = 0.526^{**}$	10.540	H <sub>4</sub> : Supported
Satisfaction → Word of Mouth	$\beta_{47} = 0.525^{**}$	10.514	H <sub>5</sub> : Supported
Satisfaction → Consumer interaction	$\beta_{48} = 0.198^{**}$	4.241	H <sub>6</sub> : Supported
<i>ns=no significative</i> <i>** significative (p&lt;0.05)</i>	$R^2(\text{Satisfaction}) = 0.529$		

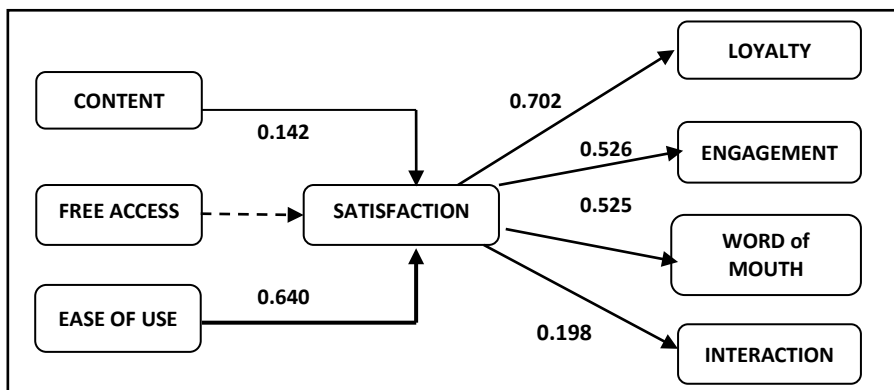
Structural Equation Modeling (SEM) was used to test the hypothesized relationships proposed in the conceptual model (Table 5). The proposed model was analyzed via the maximum likelihood estimator.

The results obtained show that content perceived ease of use is the dimension with higher loading on customer satisfaction ( $\beta_{34} = 0.640^{**}$ ), followed by the content characteristics ( $\beta_{14} = 0.142^{**}$ ). So, in terms of the effect size, the content ease of use - understood as media content which is easy to use and to interact with- seems to contribute the most to users' satisfaction; so, it can be stated that the more favorable and attractive content provided by the media, the higher consumers' satisfaction. However, and contrary to our expectations, the free access to the digital content showed not influence on users' satisfaction ( $\beta_{24} = 0.081^{ns}$ ), since the relationships were in the expected direction, but failed to reach statistical significance. A plausible reason the no significant influence of free access on users' satisfaction may be that free access does not play a significant role, since Spanish consumers are strong adopters and users of piracy content, and are used to download and consume digital content for free. In

addition, the lack of influence of the content free access could be also explained by the fact that the Spanish legislation does not strongly persecute content piracy today.

On one hand, regarding the sources of consumers' satisfaction with digital content, it should be highlighted that two of the proposed relationships are statistically significant. And on the other hand, when analyzing the consequences of users' satisfaction with content, our findings show the positive statistical significance of all the proposed relationships. More precisely, the users' satisfaction with content exerts a positive influence on users' loyalty ( $\beta_{45}=0.702^{**}$ ), followed by consumers' engagement ( $\beta_{46}=0.526^{**}$ ) and consumers' positive word of mouth ( $\beta_{47}=0.525^{**}$ ), showing a similar impact. In addition, our results highlight that consumer satisfaction influences users' interaction ( $\beta_{48}=0.198^{**}$ ), but showing a slighter impact. The reason for the slight impact of consumer satisfaction on interaction may be that either interacting, participating in online social platforms and sharing comments and experiences is considered as no important by customers; or that content users do not only share information when they are satisfied with a specific content, but also and specially when they are unhappy and highly dissatisfied with any media content.

**Figure 2.** *Final relationships*



### **3.6. Conclusions**

The aim of the present study was to examine consumers' satisfaction with digital content used and consumed through mobile devices. More precisely our main goal of this study was to understand the variables affecting users' satisfaction with digital content, and to further analyze consequences of satisfaction. For this purpose, the

present research proposed and tested a multi-dimensional model in order describe the creation of users' satisfaction as well as the consequences derived from the use and interaction with digital content, namely consumer loyalty, engagement, word of mouth communication and interaction. The results obtained suggest that our conceptual proposed model fits well the collected data; thus, providing a useful theoretical foundation for further research on content consumption behavior through mobile devices; since the research focused on any digital content- including entertainment content, information, sports, cultural, etc.-, combining the use of any mobile devices, such as smartphones, mobile phones or pads.

So, the main research question is *"What makes the audience satisfied with a digital content?"*, the answer would be *"the easy to watch, access or download, as well as the content characteristics"*. More specifically, two key variables influence satisfaction with digital content, namely, the content characteristics and the ease of use, indicating that when companies provide diverse updated content which is also ease to use, consumers' satisfaction can be enhanced. Other major research question is also *"What consequences derive from the audience satisfaction with content?"*. In this case, the answer is *"the enhancement of users' loyalty, their engagement with the content, a positive word of mouth and also an increase in their interaction in online social platforms"*; thus, representing great positive impact of the content. In this vein, our study shows that satisfaction with digital content directly and positively influences users' loyalty, engagement with the content provided, a positive word of mouth and interaction.

On one hand, one of our major findings is that among the constructs influencing consumer satisfaction, the ease of use, followed by content characteristics has the largest effect. On the contrary, the free access to the digital content showed no statistically significant effect on customer satisfaction. That is, despite free access was expected to influence users' satisfaction with media content, our results did not confirm our initial expectation. A plausible reason why free access does not play a significant role is that may be our respondents are used to download and consume digital content for free and are strong adopters and users of piracy content. In that

vein, the Spanish legislation does not strongly persecute content piracy today, so this fact may explain why content users expect that digital content is available by free.

Other major finding is that the digital content ease of use is the most important predictor of consumer satisfaction, showing that the ease of use, download and interaction with content is critical to users' satisfaction. So, the higher consumers' perception and feeling that digital content is easy to operate, use and enjoy, the greater satisfaction. Consequently, the content ease of use is influential to media companies' long-term relationships with users; and we suggest that media companies that aim to induce higher satisfaction should prioritize the improvement of the easy use and interaction with their content. In addition, other relevant finding is the positive influence of content characteristics –understood as an interesting content, updated and providing information- on customer satisfaction. Based on our findings, the delivery of diverse content could play an important role in motivating users and also would contribute to creating stronger content interests; while media companies could evaluate whether the offer of certain contents can make users feel more satisfied. Furthermore, consumers will utilize any type of digital platform or device and will switch across them to acquire the content they wish, among the content platforms available. Thus, content providers in response of this, should develop and enhance content customized strategies.

On the other hand, and regarding the consequences derived from consumers' satisfaction with content, our findings support that users' satisfaction positively influences on users' loyalty, positive word of mouth, consumer engagement and interaction. In terms of effect size, loyalty, word of mouth and consumer engagement seem to contribute the most to consumers' satisfaction; and thus, it can be stated that the higher satisfaction with content, the higher loyalty, engagement and positive word of mouth communication. This result is in line with Lin et al. (2005), who highlighted that by providing higher satisfaction with digital content, consumers' loyalty could be increased and their positive word of mouth could be transmitted to others.

One important finding is that consumer engagement is positively influenced by satisfaction. Considering that customer engagement reflects a motivational state which occurs due to the individual's interactive experiences with a particular object or

agent –the engagement object (Hollebeek, 2011)-, creating and enhancing users' engagement is crucial for digital content (Shankar and Batra, 2009; Malthouse and Hofacker, 2010). For this reason, media managers should increase customer engagement with their content, given that increasing levels of consumers' engagement are expected to attain superior organizational performance outcomes, including sales growth and consumer contribution to collaborative content development (Hollebeek et al., 2014).

Other major finding is that although consumers can easily use and enjoy digital content, consumers' satisfaction shows a slight influence on interaction. One possible reason for the low impact of consumer satisfaction on interaction may be that either interacting, participating in online social platforms and sharing comments and experiences is considered as no relevant by content consumers. Other explanation would be that users do not share information and experiences when they are satisfied with any specific content, however, they interact and share their experiences when they are unhappy and highly dissatisfied with content. So, establishing and maintaining interactive and consumer-content interactions and relationships is a key issue for media managers (Hollebeek et al., 2014).

Our main conclusion is that our findings imply that content or media companies that attempt to induce positive word of mouth, as well as loyalty and consumer engagement, should focus on the improvement of the ease of use and content characteristics. The study present study also contributes on theoretical advancement of flow experience, through testing the variable engagement for digital content in a specific market.

### **3.6.1. Implications**

Understanding the underlying factors affecting consumer satisfaction and engagement with media digital content are of critical importance for media, content producers and distributors. Derived from our findings, we propose some useful insights for company managers. Firstly, and considering that content users' satisfaction highly depends on content perceived ease of use, content managers and providers could provide simple and friendly interfaces for users to acquire the desired content through the simplest

experience (Kuo and Yen, 2009). Secondly, content providers and media companies should consider the importance of content characteristics; and in order to increase users' satisfaction, providers need to offer more relevant and unique content, since offering interesting content is a critical issue. According to the results obtained, we suggest that media companies should reinforce their collaboration with content providers to evaluate the value of the content offered, and whether they meet the demands of consumers to attract more users.

In addition, our study provides managers with an enhanced understanding of the concept of *consumer engagement*, which may be considered when designing and adopting marketing strategies. More specifically, in today's highly competitive media market, company managers are challenged regarding how to retain their more profitable customers, who may exhibit switching behaviors. So, developing and increasing consumers' engagement -through satisfaction-, is expected to generate favorable outcomes, including higher consumer loyalty and content usage intention (Hollebeek et al., 2014). Therefore, we expect consumer engagement to generate and enhance consumer retention and loyalty outcomes. And media companies and content providers are better off improving and enhancing consumer satisfaction with content offered.

### **3.6.2. Research limitations and future research guidance**

This research has several limitations which also provide possible avenues for future research. First, although a comprehensive conceptual model was proposed and empirically tested in this study, our research focused on one single market, suggesting the need for comparing with other countries and cultures. So, further research could attempt to make a cross-national study in order to examine results across countries. Second, follow-up studies could extend the research scope to other consumer groups – such as for example older consumers- to test the conceptual model in order to determine whether there are any differences among other consumer groups. Third suggestion for further research would be to incorporate some users' lifestyle variables, in order to consider their personal preferences and interests and include these variables in the conceptual model, since consumers' lifestyle and preferences for, or



interests in some particular content plays a larger role in using media content (Cha, 2013). Finally, future research should incorporate technology acceptance, to consider users' attitude and intention towards technology and digital content. Consequently, despite the importance of the study, findings must be interpreted with caution.

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