TESIS DOCTORAL

KNOWLEDGE MANAGEMENT PROCESSES AND ORGANIZATIONAL LEARNING AND UNLEARNING: THREE WORKS ON THEIR RELATIONSHIP AND INFLUENCE ON VALUE AND PERFORMANCE

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Según Victor Hugo, “el futuro tiene muchos nombres: para los débiles es lo inalcanzable, para los temerosos, lo desconocido, y para los valientes es la oportunidad.”

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INTRODUCCIÓN

CAPÍTULO 1: INTRODUCCIÓN

1.1. RELEVANCIA Y JUSTIFICACIÓN DE LA INVESTIGACIÓN

Esta tesis doctoral realiza un profundo estudio de varias capacidades organizativas que, en la actualidad, tienen gran importancia e interés para los investigadores de la administración y dirección de empresas. En concreto, analizamos los procesos de gestión del conocimiento, el aprendizaje y desaprendizaje organizativo y sus resultados, en particular, el valor para el cliente y la calidad de servicio. En nuestro trabajo, también analizamos cómo la relación entre los procesos de gestión del conocimiento puede ser identificada como una capacidad de un nivel superior o dinámica, y la importancia que ello tiene para las organizaciones.

En general, todas las empresas buscan lograr mejores resultados y poder ofrecer un superior valor al cliente; pero esto no es fácil de alcanzar. En esta tesis doctoral, estudiamos cómo las organizaciones pueden alcanzar estos objetivos a través de la gestión del conocimiento (GC) y del aprendizaje organizativo.

Desde hace varias décadas, el conocimiento ha sido considerado como un activo importante en la empresa. De hecho, el conocimiento ha sido reconocido como el recurso más importante en las organizaciones (Alavi y Leidner, 2001; Grant, 1996; Hill y Deeds,

1996). Por esa razón, se han realizado importantes esfuerzos para determinar cómo adquirir, representar, retener y gestionar dicho conocimiento.

Además del conocimiento, el valor para el cliente es una cuestión clave para las organizaciones. El fin último de una empresa es lograr ventajas competitivas sostenibles, y para ello, los directivos exploran las vías alternativas para lograrlo.

Estos profesionales trabajan intensamente para desarrollar el mejor producto o servicio, para conocer a sus clientes, así como a sus competidores tanto a nivel de sus productos o servicios como de sus estrategias. Esto es, buscan ofrecer el mejor producto o servicio en el mercado para lograr captar nuevos clientes y retener a los actuales. Este proceso de búsqueda debe ser continuo y permanente en el tiempo, siendo capaz de adaptarse a las turbulencias del entorno mejor que los competidores.

Esta tesis busca, por tanto, analizar en profundidad las relaciones entre la gestión del conocimiento a través de sus procesos, los tipos de aprendizaje y el desaprendizaje organizativo, con los resultados de la organización, en concreto, el valor para el cliente y la calidad de servicio. Adicionalmente, en nuestro trabajo también analizamos la conexión entre los procesos de gestión del conocimiento en entornos turbulentos y el enfoque de capacidades de orden superior o dinámicas existente en la literatura. Se trata de variables de gran interés tanto para académicos como para profesionales, que se tienen en cuenta a la hora de definir la estrategia empresarial.

Este estudio contribuye tanto a nivel académico como a nivel empresarial. En primer lugar, analiza en profundidad la literatura existente sobre las relaciones entre los procesos

de GC y valor; y entre los tipos de aprendizaje y la calidad de servicio dentro de un contexto de desaprendizaje. Y, en segundo lugar, propone una forma de gestionar el conocimiento disponible, ayudando a mejorar los resultados organizativos en el actual entorno.

1.2. OBJETIVOS DE LA TESIS

Esta tesis persigue clarificar un tema complejo de comprender y de aplicar para las empresas en el actual entorno socio-económico. Aunque la importancia del conocimiento tanto a nivel académico como de los profesionales es ampliamente reconocida, su gestión y aplicación práctica es compleja y requiere altas dosis de clarificación conceptual. Como, por ejemplo, entender las relaciones entre los procesos de GC, el concepto de capacidades dinámicas y cómo las empresas pueden aprender y desaprender.

El objetivo principal de este trabajo es tratar de entender en profundidad los roles desempeñados por los procesos de GC; tales como la capacidad de absorción (CA), la transferencia de conocimiento (TC), el almacenamiento o stock de conocimiento (SC) y la aplicación de conocimiento (AC); cómo influyen aquellos y el aprendizaje y desaprendizaje organizativo en los resultados empresariales, como el valor para el cliente y la calidad de servicio, y así poder alcanzar ventajas competitivas sostenibles.

Por tanto, enfocamos nuestro estudio con el objetivo de responder a las siguientes cuestiones de investigación, que agrupamos en los siguientes tres bloques:

1) ¿Tiene el desaprendizaje organizativo una relación positiva con la calidad de servicio?

2) ¿Tiene la capacidad de absorción (CA) una relación positiva con el valor para el cliente? ¿Cómo influye el SC y la AC en la relación entre la CA y el valor para el cliente?

3) ¿Es la interrelación de los procesos de GC (esto es, CA, TC y AC) una capacidad dinámica? ¿La interrelación entre dichos procesos de GC influye positivamente en el valor para el cliente?

Para responder a la primera pregunta, nos planteamos varias cuestiones intermedias que nos llevaran a responder a dicha cuestión, y son las siguientes:

a. ¿Tiene el desaprendizaje una relación positiva con los tipos de aprendizaje organizativo tales como la explotación y exploración de conocimiento?
b. ¿Tiene la explotación y exploración de conocimiento una relación positiva con el conocimiento organizativo del tipo conocimiento relacional y tecnológico?
c. ¿Tiene el conocimiento organizativo (stock) una relación positiva con la calidad de servicio?

Una vez alcanzados nuestros objetivos de investigación, los mismos nos permitirán contribuir en el campo de la gestión empresarial ayudando tanto a académicos como a profesionales a tener en cuenta y comprender las ventajas potenciales de la gestión adecuada del conocimiento y de la aplicación de sistemas de aprendizaje y desaprendizaje organizativo. Por un lado, habremos hecho una extensa revisión de la literatura anterior, y por otro lado, el estudio realizado contribuye a avanzar en dichas líneas de investigación, como la comprobación empírica del efecto moderador del stock de

conocimiento y la aplicación del mismo, y también la comprobación empírica de la asociación entre el desaprendizaje y la calidad del servicio a través de los procesos de aprendizaje. Para realizar el análisis de los datos hemos utilizado "Partial Least Square" (PLS-SEM), un modelo de ecuaciones estructurales basadas en la varianza.

1.3. DESCRIPCIÓN DEL SECTOR

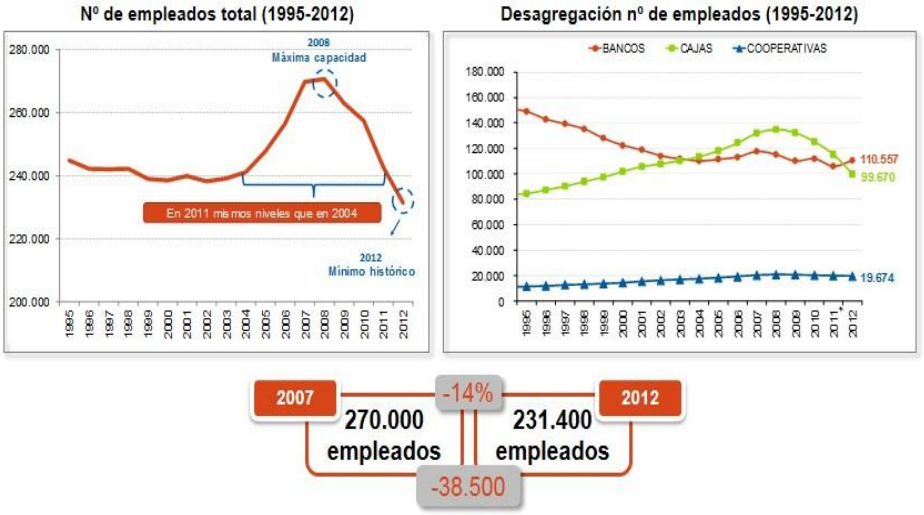
Hemos decidido utilizar en nuestro estudio una muestra del sector bancario español (SBE); en concreto, de los bancos comerciales y cajas de ahorros que operaban en el territorio nacional español en la fecha de recogida de datos. Cuando hablamos de bancos en este trabajo, nos referimos a ambos tipos de entidades. Consideramos que es un sector apropiado para tratar de verificar empíricamente las hipótesis de investigación propuestas. En concreto, vamos a dirigirnos a los bancos comerciales nacionales que realizan banca universal, es decir, que no son entidades enfocadas a un determinado nicho de negocio (ya sea banca de empresas, banca privada, banca de inversión, etc.); y cuando en nuestro trabajo hablamos de bancos, nos estamos refiriendo a ellos. Esto se debe a que este tipo de bancos, los de banca universal, son los más representativos en el territorio nacional tanto por cuota de mercado (tanto en clientes como en euros) como por cuota de presencia, es decir, en número de oficinas abiertas.

El SBE es un sector adecuado porque las actividades bancarias implican capacidades de aprendizaje. El entorno tan turbulento y el incremento de la intensidad competitiva en este sector, ha forzado que muchos bancos busquen nuevas formas de apalancar su

conocimiento. Además, el SBE es un sector altamente intensivo en conocimiento y es, por tanto, apropiado para identificar, analizar y evaluar diferentes procesos de aprendizaje y de gestión del conocimiento.

La crisis que ha atravesado, y aún está atravesando el sector, está siendo muy importante e intensa. Todo este proceso está siendo muy duro para empleados, clientes y para el Estado español. En la figura 1, vemos la evolución del número de empleados del sector desde antes de la crisis y hasta 2012, fecha en la que la primera reestructuración del sector se había realizado.

Figura 1. Pérdida de empleados en SBE (2007-2012)



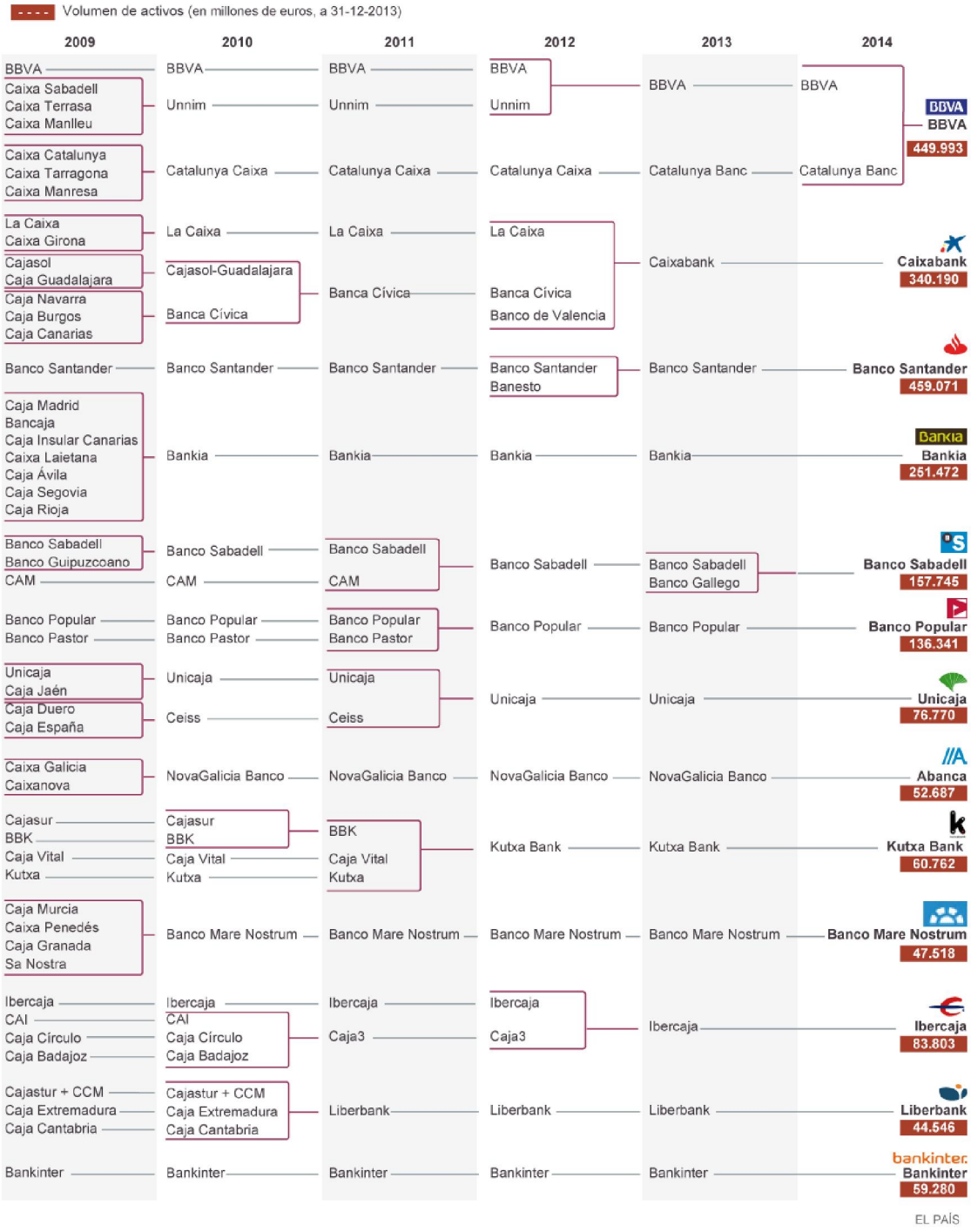
Fuente: Informe anual Banco de España (2013)

Numerosos bancos han sido absorbidos por otros, se han realizado muchos procesos de capitalización y de fusiones como medida de rescate para evitar la liquidación de numerosas entidades. La virulencia y el grado de intensidad de esta crisis financiera ha

sido desconocida hasta la fecha ya que se ha producido a una altísima velocidad y enormes cambios estructurales en el sector se han producido en un corto espacio de tiempo. Actualmente, el número total de grupos bancarios relevantes nacionales es de 13, mientras que justo al inicio de la crisis (2008) el número era de 53 entidades (figura 2 y apéndice B). La previsión actual, de finales de 2015, es que a lo largo de los próximos 3-4 años estos 13 bancos se puedan quedar en menos de la mitad de entidades, ya que el organismo supervisor bancario europeo y la entrada en vigor de nueva normativa comunitaria, que endurece los requerimientos de capital de estas entidades, apuntan hacia esa dirección buscando la creación de un sistema bancario europeo con grandes entidades, que tengan elevados niveles de capital y rentabilidad.

Ha habido una total transformación y reestructuración del sector reduciéndose el número de empleados un 14%, en concreto 38.500 empleados han perdido su puesto de trabajo en tan sólo cinco años (Informe anual Banco de España, 2013) y la expectativa en los próximos años es que otros tantos miles de puestos también se perderán por los nuevos procesos de concentración de bancos previstos para ese periodo.

Figura 2. Proceso de reestructuración del SBE (2009-2014)



Fuente: Informe anual del Banco de España (2014), adaptado y publicado por sección económica EL PAIS.

En el SBE, la calidad de servicio y el valor para el cliente son variables estratégicas porque en este sector hay un gran nivel de competencia y todas las entidades invierten gran cantidad de recursos para mejorar la calidad de servicio y lograr ventajas competitivas sostenibles. Los productos y servicios bancarios son bastante indiferenciados entre las entidades y, por dicho motivo, los bancos compiten y se diferencian en la calidad de servicio.

Por todo ello, consideramos que el SBE constituye un sector muy interesante para comprobar empíricamente nuestras hipótesis de investigación.

1.4. ESTRUCTURA DE LA TESIS

Hemos estructurado la presente tesis de la forma siguiente. El capítulo 1 es el actual capítulo de introducción. En el capítulo 2, realizamos una profunda revisión teórica de los constructos principales que conforman este trabajo. Los capítulos 3, 4 y 5 recogen los tres artículos científicos publicados en revistas de alto impacto, y en el capítulo 6 mostramos las conclusiones generales y contribuciones a nivel global.

A continuación, describimos brevemente el contenido de cada capítulo.

En el capítulo 2, nos centramos en realizar una profunda revisión de la literatura sobre gestión del conocimiento (GC); sobre sus procesos, tales como la capacidad de absorción (CA), transferencia de conocimiento (TC), almacenamiento o stock de conocimiento (SC)

y aplicación de conocimiento (AC); sobre los procesos de aprendizaje y desaprendizaje organizativo; sobre las capacidades dinámicas y sobre el valor para el cliente y la calidad de servicio.

En el capítulo 3, se incluye el artículo titulado *"Linking unlearning with service quality through learning processes in the Spanish banking industry"*(Journal of Business Research, 2015). El artículo utiliza el concepto de desaprendizaje organizativo como un elemento clave de las entidades financieras, y propone que el desaprendizaje tiene una relación positiva con la calidad de servicio a los clientes a través de los procesos de exploración/explotación de conocimiento y, adicionalmente, a través del conocimiento relacional y tecnológico.

El capítulo 4 contiene el artículo titulado *"Absorptive capacity and value in the banking industry: A multiple mediation model"* (Journal of Business Research, 2015). En este trabajo proponemos que el proceso de GC denominado capacidad de absorción (CA) es un antecedente del valor para el cliente. Adicionalmente, también examinamos el papel mediador del proceso de almacenamiento de conocimiento (SC), por un lado, y de la aplicación de conocimiento (AC) por otro; y el efecto mediador de ambos procesos de manera consecutiva, en la relación CA y valor para el cliente.

En el capítulo 5 incluimos el artículo titulado *"Critical processes of knowledge management: An approach toward the creation of customer value"* (Investigaciones Europeas de Dirección y Economía de la Empresa, 2016). Este trabajo es un estudio teórico en el que proponemos una relación positiva entre la combinación de tres procesos de GC: CA, TC y AC, y el valor para el cliente. Además, en dicho trabajo tratamos de

probar teóricamente que la combinación e interacción de estos tres procesos de GC constituyen una capacidad de orden superior o dinámica. En este caso, nos apoyamos en los llamados microfundamentos de las capacidades dinámicas y los aplicamos a la combinación e interacción propuesta entre los tres procesos de GC indicados anteriormente para explicar la mejora en los resultados de la organización.

En el capítulo final de nuestro trabajo (capítulo 6), mostramos una discusión general y las implicaciones para los directivos, así como las limitaciones y futuras líneas de investigación.

1.5. REFERENCIAS

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CAPÍTULO 2

FUNDAMENTOS TEÓRICOS

CAPÍTULO 2: FUNDAMENTOS TEÓRICOS

2.1. FUNDAMENTOS TEÓRICOS DE VALOR PARA EL CLIENTE

En relación al concepto de valor se ha escrito mucho en la literatura y se han utilizado muchos términos diferentes pero todos relacionados. Esto se debe a que tanto para los académicos como para los directivos constituye un aspecto importante a la hora de predecir el comportamiento de compra de los clientes y lograr ventajas competitivas (Bolton y Drew, 1991; Cronin et al., 2000; Dodds, Monroe, y Grewal, 1991; Holbrook, 1994; Parasuraman, Zeithaml, y Berry, 1985; Zeithaml, 1988). Sánchez e Iniesta (2006) indican que hay muchos términos diferentes para referirse al concepto de valor. Por otro lado, la literatura diferencia el valor para el cliente en función del punto de vista considerado: desde el lado de la demanda (esto es, valor percibido para el cliente) o desde el lado de la empresa (esto es, valor ofrecido por la empresa).

Según Martelo et al. (2011) el "customer value", o valor para el cliente, surgió en la década de los 90 del siglo XX, como un tema de creciente interés tanto para los académicos como para los directivos. Este concepto es considerado como uno de los factores más importantes del éxito de las empresas (Parasuraman, 1997; Woodruff, 1997; Zeithaml, 1988; Zeithaml, Berry, y Parasuraman, 1996) y ha sido identificado como una importante fuente de ventaja competitiva (Mizik y Jacobson, 2003; Spiteri y Dion, 2004; Woodruff, 1997). El valor para el cliente es también visto como la base de las actividades

del área de marketing (Holbrook, 1996), como una herramienta estratégica y crítica para atraer y retener clientes (Sanchez e Iniesta, 2006; Wang et al., 2004), y también como un indicador de intención de recompra (Parasuraman y Grewal, 2000).

Por tanto, ser capaz de comprender lo que los clientes valoran de una determinada oferta de servicios; crear valor para ellos y gestionar dichos aspectos a lo largo del tiempo, ha sido considerado como un aspecto esencial de la estrategia de negocios de las empresas (Drucker, 1985; Porter, 1985; Slater y Narver, 1998).

Determinar lo que los clientes quieren de un producto o servicio también ayuda a las empresas a formular su propuesta de valor. Porter (1985) señala que la ventaja competitiva de una firma proviene de la capacidad de crear valor para sus clientes que exceda del coste en el que se incurre para crearlo (DeSarbo, Jedidi, y Sinha, 2001).

En las últimas décadas, las empresas se han encontrado con un nuevo y complejo entorno competitivo en el que los clientes están, cada vez más, demandando la creación de un mayor valor para ellos (Sanchez et al., 2009). En la literatura se discute que este interés creciente en la creación y provisión de un valor superior para el cliente (Smith y Colgate, 2007; Wang et al., 2004), está parcialmente sustituyendo a otros conceptos más limitados como la calidad (Cronin, Brady, y Hult, 2000) o la satisfacción del cliente (Sweeney, Soutar, y Johnson, 1999; Woodruff, 1997).

Por tanto, podemos identificar la creación de valor como una importante capacidad organizativa para el éxito de una empresa y como una importante fuente de ventaja competitiva (Mizik y Jacobson, 2003; Mocciaro y Battista, 2005; Spiteri y Dion, 2004).

Definimos la creación de valor para el cliente como la capacidad de una empresa para usar sus recursos para lograr los objetivos deseados (Amit y Schoemaker, 1993) y mostramos que la capacidad para crear un valor superior para el cliente dependerá de la interacción entre sus recursos y capacidades.

Destacar que cuando hablamos de valor para el cliente en el artículo científico recogido en el capítulo 4 de la presente tesis doctoral, nos referimos tanto al cliente interno como al cliente externo de la organización. En el caso del cliente interno, nos estamos refiriendo a los empleados de la organización y, en el caso de los externos, a los clientes que compran los productos y servicios.

2.2. FUNDAMENTOS TEÓRICOS DE LA CALIDAD DE SERVICIO

Numerosos autores prestan gran atención e interés a la relación entre la calidad de servicio y la satisfacción del cliente (Beerli et al., 2004; Bitner y Hubbert, 1994; Caruana, 2002; Cronin y Taylor, 1992; Falk y Miller, 1992; Spreng y Mackoy, 1996; Sureshchandar et al., 2002; Tam, 2004; Zeithaml et al., 1996). Estos autores han indicado que la calidad de servicio podría considerarse como una actitud que está muy relacionada con la satisfacción, pero no es equivalente (Taylor y Thomas, 1994; Spreng y Mackoy 1996). La calidad de servicio puede definirse como el grado de discrepancia entre el servicio percibido por el cliente y las expectativas previas del mismo (Parasuraman et al., 1988). En la actualidad, la mayoría de los autores están de acuerdo en que la calidad de servicio

es un antecedente de la satisfacción del cliente (Bitner y Hubbert, 1994; Cronin y Taylor, 1992; Zeithaml, Berry, y Parasuraman, 1996).

En esta tesis, y en concreto en el capítulo 3, utilizamos la calidad de servicio como variable dependiente, y nos estamos refiriendo a la calidad de servicio percibida por el cliente.

La calidad de servicio ha sido también considerada como un factor importante en la gestión del servicio. Parasuraman, Zeithaml, y Berry (1985) indican que es un constructo abstracto porque presenta tres características típicas que hacen únicos a los servicios: intangibilidad, heterogeneidad e inseparabilidad entre la producción y el consumo.

Los bancos están de forma permanente buscando nuevas vías para mejorar sus servicios ya que los servicios financieros compiten en un mercado global con productos generalmente poco diferenciados. Por ello, la calidad de servicio, en este sector, se convierte en un instrumento competitivo de primer nivel (Stafford, 1996). Los cambios tecnológicos están provocando que los bancos estén repensando sus estrategias de venta de servicios a los clientes (Hossain y Shirley, 2010). Los bancos al ofrecer un mayor nivel de calidad de servicio pueden lograr diferenciarse en el mercado y esos mayores niveles de calidad de servicio pueden traducirse en mayores ingresos, mayores ratios de venta cruzada de productos y servicios, mayor cuota de retención de clientes (Bennett y Higgins, 1988) y también mayor cuota de mercado (Bowen y Hedges, 1993). Desarrollar altos niveles de calidad de servicio constituirá, por tanto, una estrategia competitiva clave para que los bancos (Chaoprasert y Elsey, 2004) mejoren sus resultados.

2.3. FUNDAMENTOS TEÓRICOS DE GESTIÓN DEL CONOCIMIENTO

2.3.1. Delimitación del concepto de gestión del conocimiento

En primer lugar, para comprender el enfoque de gestión del conocimiento consideramos necesario delimitar, de forma concreta, el concepto de conocimiento. Es importante saber lo que es considerado conocimiento y diferenciarlo de lo que no lo es.

En la literatura encontramos diversas definiciones y maneras de enfocar el concepto de conocimiento, aunque muchos autores coinciden en los aspectos más relevantes. De forma intuitiva y de acuerdo con Grant (1996a), el conocimiento puede definirse como "todo lo que se sabe o es conocido". Por su parte, Schulz (2001) lo define como todo aquello que ha sido aprendido a través de la práctica o el estudio. Nonaka y Takeuchi (1995) enfatizan el importante papel jugado por la experiencia en el proceso de obtener conocimiento. En este sentido, Davenport y Prusak (1998) definen el conocimiento como un conjunto de experiencias, valores, información externa y visión experta, que proporciona un marco para valorar e incorporar nuevas experiencias e información.

Estamos ahora en disposición de poder definir y comprender lo que es la Gestión del Conocimiento, que es una cuestión ampliamente discutida en la literatura desde hace muchos años.

Antes que nada, indicar que desde hace bastante tiempo las empresas empezaron a "querer saber qué es lo que saben", es decir, traer al plano consciente lo que la empresa sabe

hacer, pero que hasta un determinado momento nunca se habían parado a analizar y reflexionar. Y además de querer saber lo que saben, querían ir más allá preguntándose cómo podían hacer el mejor uso del conocimiento que poseían (Macintosh, 1997).

Se empezó a valorar el conocimiento como el activo más importante que tiene una organización (Drucker, 1985), y como el único recurso económico significativo; a esto se debe los esfuerzos tan importantes que se realizan para poder determinar cómo adquirirlo, representarlo, retenerlo y administrarlo.

Dentro de los objetivos de la gestión del conocimiento de las empresas se encuentra lo que la empresa conoce y sabe de sus clientes, productos, competidores, mercados, empleados, procesos, etc. La clave está en saber cómo combinar todos ellos para conseguir que la organización alcance ventajas competitivas sostenibles.

Así pues, Alavi y Leidner (2001) se refieren a esta cuestión, indicando que las empresas suelen tener problemas para poder mantener, localizar y aplicar el conocimiento, lo que les ha llevado a desarrollar procedimientos sistemáticos para gestionar el conocimiento. Estos autores ven a las organizaciones como sistemas de conocimiento, por lo que para ellos la gestión del conocimiento sería más un grupo de procesos y prácticas dinámicas y continuas incorporadas en los individuos así como también en los grupos y las estructuras. Por tanto, en cualquier momento y en cualquier lugar de la organización, los individuos y los grupos pueden estar involucrados en los diferentes aspectos y procesos de la gestión del conocimiento de la empresa (Alavi y Leidner, 2001).

Prusak (2001) define la gestión del conocimiento como el resultado inevitable de un rápido progreso en las tecnologías de la información, la globalización y la creciente conciencia del valor comercial del conocimiento organizativo.

Penrose (1959) indica que una vez que veamos a la empresa como un sistema de conocimiento, no hay por qué focalizarse en los recursos en sí, sino en los servicios proporcionados por la empresa mediante esos recursos. Es decir, no importan tanto los recursos en sí, sino los servicios que se derivan de esos recursos (Penrose, 1959). Esos servicios dependen mucho de cómo los recursos sean percibidos, lo que a su vez depende del conocimiento aplicado que hay en ellos. Las rutinas organizativas son las que poseen en mayor medida ese conocimiento, además de los miembros de la organización (Nelson y Winter, 1982).

Tsoukas (1996) considera que las organizaciones tienen discrecionalidad sobre cómo utilizar sus recursos, y por tanto los servicios derivados de ello. Siguiendo a Tsoukas (1996), podemos decir que las organizaciones y las empresas son sistemas de conocimiento distribuido y también descentralizado. Con ello, Tsoukas (1996) lo que viene a decir, es que está distribuido por la organización y de una manera indeterminada, de forma que nadie en la empresa sabe de antemano lo que el conocimiento va a ser o necesita ser. Así pues, hay una incertidumbre absoluta y total, ya que no se sabe o no se puede saber lo que se necesita saber, de ahí que se indiquen que son sistemas descentralizados.

Según Tsoukas (1996), el conocimiento nunca está completo, y es emergente (Weick y Roberts, 1993). No es poseído por un solo miembro, sino que parcialmente se origina fuera de la empresa, o deriva del contexto social o industrial en el que está inmersa la empresa (Granovetter, 1992; Spender, 1989; Whitley, 1996).

Corbitt (2005) considera que la gestión del conocimiento se centra en la explotación y desarrollo de los activos de conocimiento tratando de alcanzar los objetivos organizativos. Las organizaciones que tiene éxito en la gestión del conocimiento ven el conocimiento como un activo y desarrollan normas y valores organizativos para crear y compartir ese conocimiento. Así pues, incluye todos los procesos relacionados con compartir, identificar y crear el conocimiento.

Según Tirpak (2005), la gestión del conocimiento implica la integración de procesos, estrategia, personas y herramientas, para compartir, crear y aplicar conocimiento buscando alcanzar los objetivos empresariales.

En la literatura reciente, Martelo, Barroso y Cepeda (2011) destacan la popularidad de la gestión del conocimiento, la cual ha crecido tanto a nivel académico como entre los profesionales (Serenko y Bontis, 2004; Spender y Scherer, 2007). La gestión del conocimiento es considerada el recurso estratégico más importante, y un factor crítico para el éxito de una empresa (Van den Hooff y Huysman, 2009). Como indican Martelo, Barroso y Cepeda (2011), los profesionales de la gestión organizacional ven la gestión del conocimiento como el resultado de las presiones competitivas, y la necesidad de gestionar eficientemente los recursos intangibles de las empresas.

Dentro de la gestión del conocimiento, las tecnologías de la información se han considerado como un elemento relevante. De manera que en 2001, Alavi y Leidner afirmaban que a pesar de que la mayor parte de las teorías de la gestión del conocimiento se basan en las teorías organizativas y de estrategia, la mayoría de las iniciativas de gestión del conocimiento implican en mayor o menor grado a las tecnologías de la información (Alavi y Leidner, 2001; Huysman y Wulf, 2006; Lee y Hong, 2002). Hasta tal punto es así que, según Rezgui (2007), las estructuras de tecnologías de la información se conocen comúnmente como sistemas de gestión del conocimiento.

2.3.2. El enfoque basado en el conocimiento

Desde sus orígenes, el enfoque basado en los recursos y capacidades (RBV) (Barney, 1991; Grant, 1991; Peteraf, 1993) asume que los recursos están heterogéneamente distribuidos entre las empresas y que tal heterogeneidad puede mantenerse durante el tiempo. En palabras de Nonaka (1991), tanto los individuos como las organizaciones están, en la actualidad, inmersos en una espiral de conocimiento. Este autor indica que "en una economía dónde lo único cierto es la incertidumbre, la única fuente segura de ventaja competitiva sostenible es el conocimiento" (Nonaka, 1991, p.96). Parece estar claro que, si no el más importante, el conocimiento es actualmente uno de los recursos más importantes para la mayoría de las compañías y una base esencial de la ventaja competitiva.

Por tanto, el enfoque basado en el conocimiento (KBV) tiene su origen en el enfoque basado en los recursos (RBV). Desde este punto de vista, el conocimiento está situado en el núcleo central, ya que se considera un recurso estratégico fundamental que dificulta su transmisión y replicación, y por tanto, sirve como base de generación de ventaja competitiva sostenible (Grant, 1996a; Real-Fernández, 2003; Teece et al., 1997; Zander y Kogut, 1995). Aunque es innegable que la literatura sobre el enfoque basado en los recursos ha tenido una importante influencia en este nuevo enfoque, sería un error considerar este enfoque como una mera extensión del enfoque basado en los recursos. Podemos indicar que el enfoque basado en el conocimiento implica una mayor perspectiva y tiene su propia identidad.

Las premisas fundamentales en las que se basa este enfoque son las siguientes: 1) el conocimiento es considerado el recurso estratégico más importante y constituye una fuente sostenible de ventaja competitiva; 2) los diferentes tipos de conocimiento existentes (por ejemplo, el conocimiento tácito y explícito) implican diferentes formas de transmisión y dispersión por la organización); y 3) los individuos son los principales responsables de la creación de conocimiento, especialmente el de tipo tácito (Grant, 1996a).

Dado que el conocimiento se considera como el principal recurso, esto puede justificarse por los argumentos que proporciona el enfoque basado en los recursos, donde indican que para ser estratégicamente importante y para ser fuente de ventaja competitiva sostenible, los recursos deben cumplir cuatro requisitos: ser valioso, raro, inimitables y no sustituibles (Barney, 1991).

2.3.3. Los procesos de gestión del conocimiento

Dado el carácter clave y estratégico que tiene el conocimiento dentro de las organizaciones y dado que Alavi y Leidner (2001) indican que las empresas suelen tener problemas para poder mantener, localizar y aplicar el conocimiento; esto ha llevado a las empresas a desarrollar procedimientos sistemáticos para gestionar el conocimiento. Otros autores (Becerra-Fernandez y Sabherwal, 2001; Drucker, 1993; Ipe, 2003; Nonaka y Takeuchi, 1995) ratifican la necesidad de procesos que faciliten la creación, transferencia y apalancamiento del conocimiento individual y colectivo. La gestión de dichos procesos es considerada crítica para el éxito organizativo (Van den Hooff y Huysman, 2009). Davenport y Prusak (1998) enfatizan la importancia de la gestión del conocimiento desde el punto de vista del aprendizaje de los empleados, indicando que todos los empleados deben ser animados a crear, compartir, descubrir y usar conocimiento en sus rutinas diarias.

También Spender y Scherer (2007) se refieren a esta cuestión, destacando que los profesionales ven la gestión de los procesos de conocimiento como el resultado de las fuerzas competitivas y de la necesidad de gestionar los activos intangibles de la empresa más eficientemente (Spender y Scherer, 2007).

Siguiendo a Martelo, Barroso y Cepeda (2011), si una organización quiere capitalizar el conocimiento que posee, dicha organización debe comprender cómo el conocimiento se crea, se comparte y es aplicado (Ipe, 2003).

Aunque no hay unanimidad en la doctrina sobre el número concreto de procesos, nosotros de cara a esta tesis vamos a utilizar los siguientes: la capacidad de absorción (CA) como proceso de creación de conocimiento; el almacenamiento/stock de conocimiento (SC) como proceso de almacenaje y acumulación de conocimiento; la transferencia de conocimiento (TC) como proceso para transmitir el conocimiento en las organizaciones; y, por último, la aplicación de conocimiento (AC) como proceso de la utilización efectiva del conocimiento y finalidad última del mismo.

2.3.3.1. Capacidad de absorción

Los primeros autores en utilizar el término CA fueron Cohen y Levinthal (1990). Este término fue introducido para explicar por qué algunas empresas están en mejores condiciones a la hora de aprovechar el conocimiento externo disponible en comparación con otras en el sector (McDonald y Madhavaram, 2007). Desarrollar y mantener la CA es muy importante para la supervivencia y éxito de una empresa a largo plazo, ya que dicha capacidad de absorción puede reforzar, complementar o reorientar la base de conocimiento de la empresa.

Cohen y Levinthal (1990) definen la CA como la capacidad de reconocer el conocimiento externo, asimilarlo y aplicarlo a fines comerciales. Otras definiciones de CA existentes en la literatura son:

- Mowery y Oxley (1995): La CA implica un amplio conjunto de capacidades que son necesarias para tratar con los componentes tácitos de la tecnología transferida,

así como con la frecuente necesidad de modificar las fuentes externas de tecnología.

- Kim (1998): CA trata de la capacidad de aprender y resolver problemas.
- Lane y Lubatkin (1998): CA implica la capacidad de una empresa para evaluar, asimilar y aplicar un nuevo conocimiento ofrecido por otra empresa.
- Zahra y George (2002): CA es un conjunto dinámico de rutinas y procesos organizacionales a través de los que las empresas adquieren, asimilan, transforman y explotan conocimiento.
- Lane, Koka y Pathak (2006): CA trata de la capacidad de la firma de tomar ventaja a partir del conocimiento obtenido externamente por medio del aprendizaje exploratorio, transformativo y explotativo.
- Todorova y Durisin (2007): CA es la capacidad de una empresa de reconocer el valor del conocimiento externo, adquirirlo, asimilarlo y explotarlo.
- Cepeda-Carrión, Cegarra-Navarro y Jiménez-Jiménez (2012): CA es la cualidad que permite la conversión del conocimiento en nuevos productos, servicios o procesos, apoyando, por tanto, a la innovación.

Una vez realizada una revisión de las principales definiciones de CA en la literatura, destacar que numerosos autores han enfocado la CA generando diferentes modelos de investigación. Los modelos más relevantes serían los siguientes:

- El modelo de Cohen y Levinthal (1990). Fueron los primeros en introducir el concepto de CA. Proponen en su modelo que la CA depende de las fuentes de conocimiento externo y de la cantidad de conocimiento acumulado. En este

modelo, la CA abarca 3 dimensiones secuenciales: reconocimiento, asimilación y aplicación de conocimiento. La CA se propone como un antecedente de la actividad innovadora de las empresas.

- El modelo de Lane, Salk y Lyles (2001). Este modelo valora la CA en el contexto de las IJV ("international joint ventures"). Este modelo divide la CA de acuerdo a las 3 dimensiones del modelo propuesto por Cohen y Levinthal (1990), reconocimiento, asimilación y aplicación. El reconocimiento y la asimilación de conocimiento contribuye a la mejora del conocimiento de la empresa aprendido, y sin embargo, la capacidad de aplicación de conocimiento de la empresa está directamente relacionada con el rendimiento organizacional. Este aspecto se relaciona con el concepto de capacidad de absorción realizada desarrollado por Zahra y George (2002).
- El modelo de Zahra y George (2002). Estos autores definen la CA como un conjunto dinámico de rutinas y procesos organizacionales a través de los que las empresas adquieren, asimilan, transforman y explotan conocimiento. Distinguen dos subunidades diferentes pero complementarias de CA: por un lado, la capacidad de absorción potencial, la cual se compone de dos dimensiones – adquisición y asimilación de conocimiento; y, por otro lado, la capacidad de absorción realizada, que implica las dimensiones de transformación y explotación de conocimiento.
- El modelo de Jansen, Van den Bosch y Volberda (2003). Estos autores desarrollan un nuevo modelo basándose en el modelo previo de Van den Bosch et al. (1999) e incluyen algunas mejoras propuestas por Zahra y George (2002). En este

modelo, hay 3 capacidades diferentes – coordinación, sistemas y socialización- que son antecedentes de la CA. Por otro lado, la CA es modelada como un antecedente de la adaptación y del rendimiento de las empresas. El modelo también considera las dos subunidades de la CA propuestos por Zahra y George (2002), esto es, la capacidad de absorción potencial y la realizada.

2.3.3.2. Almacenamiento de conocimiento

El objetivo del almacenamiento de conocimiento es hacer que el conocimiento organizativo sea accesible para aquellos que lo necesiten (Davenport y Prusak, 1998). Todas las personas de la empresa deben tener acceso a la base de conocimiento para obtener el conocimiento necesario para su desempeño y realización de sus funciones. El conocimiento acumulado en las empresas puede jugar un papel importante eliminando obstáculos e ineficiencias y, al mismo tiempo, mejorando el rendimiento de la gestión (Walsh y Ungson, 1991). Sin embargo, si el conocimiento creado a lo largo de los años a través de las actividades de GC no se retiene sistemáticamente, no puede ser beneficioso para las necesidades futuras de las organizaciones a la hora de tomar decisiones (Chang Lee et al., 2005).

El almacenamiento de conocimiento, base de conocimiento, o stock de conocimiento (SC) parte del concepto de aprendizaje organizativo; es decir, la firma es un sistema de aprendizaje resultante de la acumulación de conocimiento. Los miembros de una organización poseen, adquieren y acumulan conocimiento a través de la experimentación,

la observación de estímulos y la interpretación de resultados. Ravasi y Verona (2001) indican que una base de conocimiento siempre existe en una empresa, tanto a nivel individual como colectivo, en rutinas, bases de datos, bases de conocimiento, intranets, etc. En este sentido, algunos autores asimilan el SC al concepto de memoria organizativa, cuya definición puede ser la persistente representación de conocimiento e información procedente de la historia de la empresa (Chou et al., 2007).

De acuerdo al enfoque basado en el conocimiento (KBV), el SC pone al alcance de la empresa, la capacidad de comprender y aplicar el nuevo conocimiento para la toma de decisiones, para la resolución de problemas o para la innovación (Ahuja y Katila, 2001).

En esta tesis, y en concreto en el capítulo 3, utilizamos dos expresiones del concepto de stock de conocimiento, como son el conocimiento relacional y el conocimiento tecnológico. El stock de conocimiento está claro que, en las empresas, está dentro de personas y/o de máquinas. En el primer caso, nos estamos refiriendo al conocimiento relacional, y en el segundo caso, al conocimiento tecnológico (ambos utilizados en el capítulo 3). El conocimiento relacional hace referencia al conocimiento que surge de la relación de los gestores de las empresas con sus clientes (Cepeda-Carrión, Cegarra, Martinez Caro, y Eldridge, 2011). Mientras que el conocimiento tecnológico hace referencia a un conjunto difuso de habilidades que permiten un mejor uso de la tecnología. Este conocimiento tecnológico proviene y reside en la actividad humana (Herschbach, 1995), como Landies (1980) indica.

La amplitud y la profundidad del conocimiento son dimensiones distintas de la base de conocimiento de una organización que revelan tanto la estructura como el contenido del

conocimiento que una firma posee. La amplitud del conocimiento se refiere a la medida en que la base de conocimiento de una firma contiene diferentes y múltiples esferas de conocimientos, mientras que la profundidad concierne al nivel de sofisticación y complejidad en áreas claves (Zhou y Li, 2012).

2.3.3.3. Transferencia de conocimiento

La transferencia de conocimiento (TC) se refiere al intercambio de conocimiento entre una fuente emisora y la parte receptora (Baskerville y Dulipovici, 2006). Dicho intercambio se produce entre grupos, de un grupo a individuos, entre grupos, entre individuos, de individuos a fuentes explícitas y de un grupo a la organización (Alavi y Leidner, 2001). Podemos destacar que la TC se da tanto entre empresas como dentro de la empresa, siendo éste segundo caso, incluso más importante que el primero (Grant, 1996a).

En la literatura encontramos definiciones del proceso de TC propuestas por diversos autores a lo largo de los años. Destacamos las siguientes:

- Liebowitz (2004): La TC es el proceso clave de creación de valor en un sistema de gestión del conocimiento que aspira hacia la creación de valor maximizando el conocimiento.
- Argote e Ingram (2000): La TC es el proceso a través del cual una unidad (grupo, departamento o división) es afectada por la experiencia de otra.
- Sveiby (2001): El valor del conocimiento se dobla cuando es transferido.

- Lavergne y Earl (2006): Como el conocimiento es inerte, el proceso de transferencia condiciona su dinamización y su aumento de valor.
- Cole (1999): Las organizaciones que se proponen identificar conocimiento útil a menudo subestiman el reto de hacer ese conocimiento útil en otro lugar.
- Lin y Lee (2005): La TC es definida como los procesos de la empresa que distribuyen conocimiento entre todas las personas que participan en las actividades del proceso.
- Cegarra-Navarro y Martínez-Conesa (2007): La TC es definida como la transmisión de conocimiento desde las personas que han estado relacionadas con los clientes y proveedores al resto de personas que forman parte de la empresa.
- Vorakulpipat y Rezgui (2008): La TC no se define sólo como el proceso de transmitir conocimiento a los receptores objetivo, sino también como el proceso a través del cual es absorbido y usado por las personas.

Para que una empresa permanezca competitiva en el mercado, el conocimiento organizativo y la habilidad deben ser compartidos (Zack, 1999; Gold et al., 2001). Por tanto, la TC es considerada un paso crítico para la gestión del conocimiento exitosa.

No obstante, algunos investigadores destacan que existen dificultades para que se pueda producir esa TC. Leonard-Barton (1990), Rogers (1983) y Teece et al. (1997), indican que existen varios grupos de factores que influyen en la dificultad para transferir el conocimiento dentro de una organización:

- Las características del conocimiento transferido.

- Las características de la fuente.
- Las características del receptor.
- Las características del contexto en el cual se produce la transferencia.

También Szulanski (1996) se preocupó por investigar el motivo de las dificultades para esa TC dentro de las organizaciones, indicando varios motivos relacionados con el conocimiento de forma directa:

1. Relación difícil entre la fuente y el receptor. Si la relación entre ambos no es buena y la comunicación no funciona, entonces difícilmente se podrá intercambiar conocimiento de manera efectiva.
2. Ambigüedad causal: Ambas partes no saben quién dispone del conocimiento que necesitan, o si alguien necesita lo que ellos saben.
3. Falta de capacidad de absorción del receptor: Se refiere a la habilidad para valorar, asimilar y aplicar exitosamente el conocimiento transferido.

Además, algunos investigadores indican que no siempre es beneficiosa la TC, ya que en determinados casos puede ser hasta contraproducente, de manera que puede perjudicar al rendimiento de la unidad receptora. Esto se daría en casos en los que el conocimiento a transferir no es el apropiado, o no se puede adaptar al nuevo contexto (Argote e Ingram, 2000; Baum e Ingram, 1998).

2.3.3.4. Aplicación de conocimiento

Según Gold et al. (2001) la aplicación efectiva del conocimiento parece ser en gran parte asumida o supuesta ya que no se trata explícitamente en la literatura. Por ejemplo, Nonaka y Takeuchi (1995) tratan la habilidad de una empresa para crear conocimiento, pero parecen asumir que una vez creado, será aplicado eficazmente. No obstante, en la literatura encontramos las siguientes definiciones de este proceso:

- Gold et al. (2001): La AC se refiere a los procesos orientados hacia el uso del conocimiento. Este conocimiento puede ser usado para ajustar la dirección estratégica, resolver nuevos problemas y mejorar la eficiencia.
- Gold (2001): La AC consiste en aplicar el conocimiento organizativo para aprender de los errores, resolver problemas, mejorar la eficiencia y tratar con las necesidades competitivas cambiantes.
- Chou et al. (2007): La integración de conocimiento se refiere al grado en que los empleados acceden activamente a la información y la integran en su conocimiento general de la situación y sus preferencias. Si el conocimiento organizativo no está integrado, entonces el valor de la generación y codificación de conocimiento disminuye.
- Lin (2007): La AC es el proceso a través del cual el conocimiento se vuelve activo y relevante para la empresa en la creación de valor. Implica la utilización del conocimiento para problemas relacionados con el trabajo. La AC mejora la satisfacción del empleado en el trabajo y crea valor de negocio.

- Bhatt (2001): La AC implica hacer el conocimiento más activo y relevante para la empresa al crear valor.

Una de las formas más comunes de utilización del conocimiento es adoptar las mejores prácticas de una empresa líder, descubrir el conocimiento relevante y aplicarlo (O'Dell y Grayson, 1998; Chang Lee et al., 2005). La AC incluye la absorción del conocimiento generado en las fases de adquisición y transferencia (es decir, la internalización del conocimiento en una empresa), por lo que podría ser aplicado a lo ya aprendido en estas fases.

Según Martelo-Landroguez et al. (2011), si una organización quiere capitalizar el conocimiento, la misma debe entender cómo crear, compartir y aplicar dicho conocimiento.

2.4. FUNDAMENTOS TEÓRICOS DEL APRENDIZAJE Y DESAPRENDIZAJE ORGANIZATIVO.

2.4.1. El aprendizaje organizativo

El aprendizaje organizativo (AO) puede definirse como el proceso a través del cual el nuevo conocimiento y las ideas se desarrollan. Este nuevo conocimiento tiene sus raíces en la experiencia de los propios miembros de la organización y en la base de conocimiento de la misma. Por tanto, el AO puede ser definido como "la competencia organizativa en crear, adquirir y transferir conocimiento, y en modificar su comportamiento reflejando el

nuevo conocimiento y las nuevas ideas" (Garvin, 1993). Fiol y Lyles (1985) lo definen como el proceso de acciones de mejora a través de un mejor conocimiento y entendimiento.

En la actualidad, las organizaciones se enfrentan a un entorno socio-económico que se caracteriza por su turbulencia, dinamismo y globalización. Por ello, el conocimiento constituye un recurso estratégico para competir de manera efectiva (Grant, 1996a; Nonaka y Takeuchi, 1995; Teece, 1998). Asimismo, las características actuales del entorno han contribuido a aumentar el interés tanto de los académicos como de los directivos en el estudio del AO.

Según Zack (1999), la pertinencia de la capacidad de aprendizaje de una organización está en relación a su habilidad para minimizar la distancia existente entre el conocimiento acumulado en el pasado y el conocimiento necesario para ajustarse o incluso anticiparse a las condiciones del entorno. Las organizaciones concienciadas con la adaptación como clave de la supervivencia, han optado por una decidida y clara vocación hacia el aprendizaje continuo, el cual les permite desarrollar una respuesta organizativa conveniente (Hsu y Pereira, 2008; Weerawardena et al., 2006), diferenciarse (Lei et al., 1996), obtener mejores resultados no financieros (Bapuji y Crossan, 2004), mejores resultados financieros (Arthur y Huntley, 2005; Jiménez y Cegarra, 2007; Pérez et al., 2005; Real et al., 2006; Skerlavaj et al., 2007) y conseguir ventajas competitivas sostenibles a largo plazo (Kandemir y Hult, 2005; Kang et al., 2007).

El aprendizaje dentro de una empresa puede ocurrir en diferentes niveles, a nivel individual, de grupo u organizativo (Crossan et al., 1999; Nonaka y Takeuchi, 1995; Shrivastava, 1983).

El aprendizaje a nivel individual comprende un conjunto de conocimientos individuales, mapas cognitivos y competencias individuales. El aprendizaje grupal implica de forma sucesiva un amplio conjunto de modelos mentales y de capacidades y técnicas compartidas que forman conocimiento de grupo.

Con el fin de fomentar el AO, las empresas deberían promover mecanismos que favorezcan la distribución del conocimiento dentro de la organización. La dimensión social del conocimiento y el fomento del intercambio del mismo puede llegar a ser un aspecto crucial en el intento de convertirse en una organización que aprende.

En el presente trabajo, y en concreto en el capítulo 3, hemos tratado de demostrar cómo el desaprendizaje, que abordaremos en el siguiente epígrafe, está relacionado con la calidad de servicio, y proponemos que dicha relación se produce a través de procesos de aprendizaje de tipo individual, como son la exploración y la explotación de conocimiento; y también y de forma sucesiva con el stock de conocimiento organizativo representado en este caso por el conocimiento relacional y el de tipo tecnológico.

En dicho capítulo, examinamos la combinación de factores que facilitan que las capacidades de exploración y explotación creen nuevo conocimiento. A nivel individual, la exploración y explotación ocurren de forma simultánea y recursiva, y juntas constituyen la creación de conocimiento (Zahra y George, 2002). A nivel colectivo, para

desarrollar conocimiento relacional y tecnológico se requiere la cooperación de toda la organización haciendo de la explotación y exploración los pasos iniciales hacia nuevas estructuras de conocimiento. De esta forma la exploración y explotación son herramientas de gestión para lograr los objetivos empresariales.

2.4.2. El desaprendizaje organizativo

Potenciar el aprendizaje en una organización, precisa considerar que ésta olvide los conocimientos aprendidos: "Unlearning Organization" (concepto acuñado por Prahalad y Hamel, 1994), que significa esencialmente que la organización disponga de medios para desprenderse de parte de su pasado. El conocimiento obsoleto puede evitar la adaptación a las nuevas rutinas, por ello los directivos necesitan crear una cultura de continuo desaprendizaje. Becker (2008) mantiene que el desaprendizaje se produce cuando se es consciente de que algunos elementos del conocimiento son inapropiados o no van a tener validez en el largo plazo. Por tanto, el desaprendizaje se convierte en la habilidad para preparar el terreno para la creación y aplicación de los nuevos conocimientos y de las nuevas estructuras para este conocimiento (Rushmer y Davies, 2004).

Un alto nivel de turbulencia en el entorno puede ser el desencadenante de un comportamiento de desaprendizaje (Moorman y Miner, 1997; Nystrom y Starbuck, 1984), es decir, la turbulencia ambiental es uno de los antecedentes más importantes del desaprendizaje. Tradicionalmente, las organizaciones, al igual que las personas, se empeñan en aprender. Sin embargo, el mayor obstáculo para desarrollar nuevo

conocimiento en ocasiones, es desaprender lo que se sabe; más concretamente, el desaprendizaje facilita un proceso de aprendizaje fluido permitiendo a la gente ajustar sus normas y valores para cambiar las necesidades de aprendizaje ambiental (Wijnhoven, 2001).

El desaprendizaje en actividades de innovación, se sitúa entre el nuevo conocimiento y el existente ya obsoleto, constituyéndose el desaprendizaje como una condición necesaria para la creación de nuevo conocimiento cuando existe un conocimiento previo ya anticuado. El desaprendizaje juega, por tanto, un papel fundamental cuando el nuevo conocimiento adquirido es incompatible con conocimientos organizacionales previos. Así, las organizaciones necesitan de un contexto en el cual el conocimiento anticuado pueda ser reemplazado (Rebernik y Sirec, 2007). El desaprendizaje no solo es un camino para olvidar viejo conocimiento, también es la manera mediante la cual las compañías son capaces de reaprender y desarrollar nuevos conocimientos.

Puesto que vinculamos el desaprendizaje a los procesos de aprendizaje dentro de la organización, creemos importante conceptualizarlo como un proceso con identidad propia y no como antagónico al aprendizaje (Akgün et al., 2007). Como sugiere Rushmer y Davies (2013), el proceso de desaprendizaje no es simple, sino que es singular y tiene su propia problemática resultado del proceso de aprendizaje. Es un proceso distinto, habitualmente no espontáneo, que aparece en diferentes formatos. También nos dicen estos investigadores anteriormente mencionados, que la profundidad del desaprendizaje infunde una nueva manera de hacer y comprender que refleja una ruptura radical con el pasado.

A continuación mostramos algunas definiciones de desaprendizaje organizativo recogidas en la literatura:

- Hedberg (1981): Un proceso para olvidar lo aprendido y por medio del cual se descarta el conocimiento obsoleto y engañoso.
- Nystrom y Starbuck (1984): Descubriendo viejas ideas insuficientes y desechándolas a continuación.
- Hamel (1991): Alterar los mapas perceptuales eliminando los viejos comportamientos y sustituyéndolos con los nuevos comportamientos.
- Stikin et al. (1994): Descartar conocimiento y rutinas anticuadas.
- Pratt y Barnett (1997): El proceso de desechar el conocimiento obsoleto y engañoso, estimulado por las emociones opuestas que permiten desarrollar mapas mentales y respuestas nuevas.
- Harvey y Buckey (2002): Es la eliminación sistemática de la información que esta anticuada o no tiene utilidad a largo plazo para la toma de decisiones de la dirección.
- Martin de Holan et al. (2004): Desorganizando el conocimiento mediante la ruptura de rutinas, cambiando estructuras y manejando la cultura de manera que desmantelemos el conocimiento profundamente arraigado.
- Cegarra y Dewhurst (2006): El proceso dinámico que identifica y elimina el conocimiento y las rutinas obsoletas e ineficientes.
- Akgün et al. (2007): Propone que el desaprendizaje organizativo, es en esencia llevar a cabo los cambios de rutinas y prácticas en la organización.

El desaprendizaje, entendiéndolo como una barrera al aprendizaje, es la dificultad para preguntarse y rechazar prácticas existentes (suposiciones y creencias heredadas) como únicas alternativas viables y con efectos en el aprendizaje (Cegarra y Rodrigo, 2004).

A partir de las definiciones anteriores podemos destacar algunos aspectos:

1. El aprendizaje y el cambio comienzan con el desaprendizaje.
2. Puede tratarse de un proceso consciente y funcional que permite rechazar ciertos comportamientos y limitaciones, conduciendo a un aumento o disminución del elenco de comportamientos potenciales.
3. Ofrece espacio para la creación de nuevo conocimiento o ideas en situaciones en las que las antiguas pautas de conducta ya no están disponibles, haciendo posible los procesos de aprendizaje en las organizaciones (Starbuck, 1996).
4. El desaprendizaje se relaciona con la habilidad para preparar el escenario para la creación y aplicación de los conocimientos y estructuras de conocimientos nuevas (Rushmer y Davies, 2004).
5. Para ser una organización que desaprende (unlearning organization) es condición necesaria, aunque no suficiente, ser una organización que aprende (learning organization). Desaprender es vital para las organizaciones que quieren aprender a sobrevivir y luchar dentro del panorama altamente competitivo (Hedberg, 1981; Nystrom y Starbuck, 1984). En concreto, a las organizaciones cada vez les será más difícil aprender si no desaprenden primero (Hedberg, 1981).

2.5. FUNDAMENTOS TEÓRICOS DE LAS CAPACIDADES DINÁMICAS.

2.5.1. Concepto de Capacidad Dinámica.

En primer lugar, vamos a analizar brevemente lo que se entiende en la literatura de gestión estratégica por "capacidad" a secas. Siguiendo a Helfat y Winter (2011) y Helfat (2007), podemos entender que cuando se dice que una organización tiene la "capacidad de", nos estamos refiriendo a que posee la habilidad de desarrollar una actividad en particular de una forma fiable y mínimamente satisfactoria.

A partir de este concepto inicial de capacidad, y teniendo en cuenta las turbulencias tan importantes del entorno en la actualidad, con una profunda y alargada crisis en casi todos los sectores productivos, incluyendo a los sistemas financieros públicos de numerosos países, lo que se traduce en una escasez de recursos muy notable; las organizaciones deben ser más que nunca capaces de distribuir y redistribuir sus recursos disponibles entre las distintas alternativas posibles, para tratar de adaptarse de la mejor manera y lo más rápidamente posible a las turbulencias de este entorno que nos sacude (Fowler, King, Marsh y Victor, 2000; Prahalad y Ramaswany, 2004). Ese entorno tan turbulento plantea continuamente distintos retos y demandas a las que tenemos que responder.

La innovación, por tanto, se vuelve vital. Las empresas tienen que innovar, adaptarse y reconfigurarse a sí mismas para combinar los mercados en evolución con las condiciones tecnológicas para sobrevivir y prosperar (Eisenhardt y Tabrizi, 1995; Galunic y Eisenhardt, 2001). Por todo ello, para que las organizaciones puedan evolucionar,

avanzar, crecer, adaptarse, y en definitiva, sobrevivir, necesitan desarrollar lo que podemos denominar "capacidades dinámicas"; por medio de las cuales la empresa estará preparada y tendrá sentadas unas bases firmes en las que apoyar su estrategia.

Quien no sea capaz de crear en sus organizaciones el caldo de cultivo para que aflore la innovación, la creatividad, el hacer las cosas de otro modo y mejor, probablemente estará dando ventaja a sus competidores, y por tanto, tenderá a desaparecer.

Ese apellido de dinámicas se refiere al hecho de que tales capacidades sirven para renovar capacidades y así alcanzar cierta congruencia con el entorno tan turbulento y cambiante. Las empresas, de este modo, necesitan ser flexibles e innovadoras cuando el ritmo de entrada en el mercado y de cambio tecnológico exige la toma de decisiones rápidas y cuando la competencia y las estructuras de mercado son difíciles de predecir (Sher y Lee, 2004).

En la literatura existen muchas definiciones de capacidades dinámicas (CD), y constituye un concepto al que se ha llegado mediante una evolución terminológica de distintos autores a lo largo de las últimas décadas.

Podemos decir que el primero que empezó a hablar de algo parecido a CD fue Selznick en 1957, utilizando el término "Competencia Distintiva", luego surgió el concepto de "rutinas organizativas" (Nelson y Winter, 1982), de "capacidad de absorción" (Cohen y Levinthal, 1990), de "capacidades combinatorias" (Kogut y Zander, 1992) y, finalmente, "capacidades dinámicas" (Teece et al., 1997).

Teece, Pisano y Shuen (1997) fueron los primeros en utilizar el concepto de CD, y podemos decir que son los padres del concepto de una manera muy parecida tal y como se entiende en la actualidad. Ellos la definieron como: "la habilidad de la empresa para integrar, construir y reconfigurar sus competencias internas y externas para gestionar los entornos rápidamente cambiantes".

De manera similar, en el año 2000 se refirieron a este concepto Eisenhardt y Martin, definiéndolo como "los procesos empresariales que usan recursos -específicamente los procesos de integrar, reconfigurar, adquirir y liberar recursos- para asumir o incluso generar cambios en el mercado".

Podemos decir, por tanto, que las CD son las rutinas organizativas o estratégicas a través de las cuales las empresas alcanzan nuevas configuraciones de recursos cuando los mercados surgen, colisionan, se rompen, evolucionan y mueren.

Otros autores utilizaron una terminología diferente, pero sus definiciones recogen el mismo contenido que el concepto de CD. Por ejemplo, Kogut y Zander (1992) usaron el concepto "Capacidades Combinatorias" para describir "los procesos organizativos a través de los cuales las empresas sintetizan y adquieren recursos de conocimiento y generan nuevas aplicaciones para esos recursos". Henderson y Cockburn (1994), de forma análoga, usaron el término "Architectural Competence" y Amit y Schoemaker (1993) usan, a secas, el término "Capacidades".

Winter (2003) destaca que hay diferentes opiniones entre los autores sobre las capacidades dinámicas. Algunos autores opinan que no existen; otros creen que "nacen y

no se hacen", y por tanto, ponen en duda que los directivos puedan actuar buscando reforzar dichas capacidades; otros, opinan que aunque los directivos deban perseguirlas, no son generadoras de ventaja competitiva; otros, como Helfat y Winter (2011) opinan que las capacidades una veces funcionan como organizativas y otras veces como dinámicas; y otros como Teece et al. (1997) opinan que son la clave para obtener una ventaja competitiva.

Aunque el entorno de los negocios en la actualidad es sumamente complejo y turbulento (Sawney y Parikh, 2001), Pavlou y El Sawy (2011) muestran que, incluso en entornos relativamente estables, las CD pueden facilitar una ventaja competitiva. Así, incluso en condiciones estables, hay nuevas oportunidades de mercado para rendimientos superiores (Pavlou y El Sawy, 2011).

En base a todo esto, Zollo y Winter (2002) proponen una nueva definición de CD, y establecen que: "una capacidad dinámica es una pauta de actividad colectiva aprendida y estable a través de la cual la organización sistemáticamente genera y modifica rutinas persiguiendo mejorar la efectividad". En esta definición podemos destacar la utilización de los términos "sistemáticamente", "pauta aprendida y estable", que viene a resaltar que las "Capacidades Dinámicas" no son algo efímero y desordenado, sino que son persistentes y estructuradas. Cuando una organización se adapta, por ejemplo, a una serie de crisis, pero lo hace de forma creativa y sin conexión, no está desarrollando una CD.

Hasta tal punto es algo estructurado y ordenado, que Zollo y Winter (2002) indican que, del mismo modo que las capacidades organizativas están formadas por rutinas, las CD

también lo están, y por tanto, para desarrollar estas capacidades se requiere la misma disciplina en cuanto al aprendizaje que las capacidades organizativas.

Con posterioridad a Winter, en la literatura existente, otros autores han propuesto definiciones de CD. Así, Pavlou y El Sawy (2011), las definen como "la habilidad para desplegar nuevas configuraciones superiores de competencias funcionales percibiendo el entorno, generando nuevo conocimiento, coordinando actividades e integrando recursos". En 2007, Cepeda y Vera, utilizan la definición de Zahra, Sapienza y Davidsson (2006), e indican que las CD se refieren a "procesos para reconfigurar recursos y rutinas operativas de una empresa de la manera apropiada prevista y estimada por sus principales decisores".

Más recientemente, Martelo-Landroguez (2011) indica que las CD ayudan a las empresas a ajustar su base de recursos para así poder mantener su ventaja competitiva, que de otra forma podría ser rápidamente erosionada; es decir, las capacidades dinámicas hacen hincapié en el desarrollo y renovación de los recursos y capacidades actuales. Martelo-Landroguez (2011) adopta una definición como resultado de una revisión exhaustiva de todas las definiciones propuestas por diferentes autores y anteriormente indicadas, y define CD como "la habilidad de la empresa para reconfigurar sus capacidades operativas". Las capacidades operativas son las que implican usar un conjunto de rutinas para ejecutar y coordinar la variedad de tareas requeridas para llevar a cabo las actividades de la empresa. Martelo-Ladroguez (2011) nos dice que para el desarrollo de capacidades dinámicas es importante tanto la acumulación de experiencia tácita como la codificación de conocimiento explícito. La acumulación de experiencia hace referencia al desarrollo de rutinas operativas como resultado de la ejecución repetida de tareas similares (Macher

y Mowery, 2009). La articulación del conocimiento es el proceso por el cual las empresas determinan qué funciona (y qué no) en la ejecución de las tareas organizativas y comunican esta información. La codificación de conocimiento es el proceso que documenta esta información sobre las rutinas organizativas (Macher y Mowery, 2009).

En los últimos años, la idea de CD como última fuente de ventaja competitiva se ha convertido en un importante enfoque de investigación en dirección estratégica (a partir de Teece et al., 1997). Di Stefano, Peteraf y Verona (2010) analizan la relevancia del tema de las CD en la investigación más reciente. Para ello, analizan la bibliografía existente en el periodo 1995 hasta 2008, consultando en la base ISI-Web en la categoría "Business and Management" y detectan que en ese periodo había 371 artículos publicados sobre CD en revistas de alto impacto.

2.5.2. El enfoque de las capacidades dinámicas.

La importancia de las CD ha sido tal, que se ha llegado a desarrollar una nueva visión por parte de la literatura denominada Enfoque de las Capacidades Dinámicas.

Teece et al. (1997) recoge una síntesis bastante completa de toda la literatura de los últimos años relacionada con la visión teórica evolutiva del proceso y del cambio tecnológico, y pone de relieve que en todos esos trabajos hay un denominador común que es el énfasis e interés en las CD específicas de la empresa (Nelson, 1991).

Nelson (1991) indica que son las diferencias organizativas y no el poseer, por ejemplo, un mayor nivel de tecnología, lo que determina diferencias duraderas entre las organizaciones y no fácilmente imitables entre ellas. Especialmente relevantes son las diferencias entre las empresas con habilidades en generar y crear a través de la innovación, más que el nivel de tecnología en sí. Esto se debe a que hay determinada tecnología que se entiende mejor y más fácil que las propias capacidades dinámicas de la empresa (Nelson, 1991).

Teece et al. (1997) identifica tres paradigmas o marcos donde agrupar todas las aportaciones teóricas de la literatura que tratan de identificar las fuentes de ventaja competitiva entre las organizaciones, es decir, cuál es el origen o el motivo que hace que las empresas obtengan diferentes rendimientos, rentabilidades, resultados; en definitiva, diferentes outputs. A esa identificación de los paradigmas, Teece et al. (1997) aporta un cuarto paradigma denominado Enfoque de las capacidades dinámicas.

1º.- Marco de las fuerzas competitivas: La estructura de la industria, las barreras de entrada y el posicionamiento determinan las diferencias de resultados empresariales, y por tanto, son los problemas estratégicos a resolver. Resalta las acciones que una empresa puede tomar para crear posiciones defendibles contra las fuerzas competitivas (Porter, 1980).

2º.- Enfoque del conflicto estratégico: Los competidores actuaran en base a las previsiones o expectativas de cómo actuará el otro, y el problema estratégico a resolver se basa en la interacción entre esos competidores (Saphiro, 1989).

3º.- Teoría basada en los recursos y capacidades (RBV): Las diferencias de resultados empresariales residen en la mayor o menor disponibilidad de recursos frente a la competencia, y su protección o aislamiento frente a ella (Penrose, 1959; Rumelt, 1984; Teece, 1984; Wernerfelt, 1984).

4º.- Enfoque de las capacidades dinámicas: Trata de identificar aquellas dimensiones de las capacidades de la empresa que pueden ser fuente de ventaja competitiva, y explicar cómo las combinaciones de recursos y capacidades pueden ser desplegadas, desarrolladas y protegidas. Podemos considerar este enfoque como emergente e integrador para entender las nuevas fuentes de ventaja competitiva.

Además de estos cuatro enfoques, la literatura incluye como extensión de la teoría basada en los recursos y capacidades (RBV) y como precursor del enfoque de las CD, el llamado enfoque basado en el conocimiento. Los autores que defienden el enfoque de la empresa basado en el conocimiento (Grant, 1996b; Nonaka, 1994; Spender, 1996), consideran que el principal objetivo de la empresa es crear y aplicar conocimiento. Como aspectos relevantes de este enfoque, podemos decir: que la empresa es un almacén de conocimientos; saber cómo acceder a este conocimiento; la creación de un ambiente propicio en la empresa para la adquisición de ese conocimiento, y también la consideración del conocimiento como un activo (Davenport, De Long y Beers, 1998).

Eisenhardt y Martin (2000) indicaron que, aunque la naturaleza exacta de las CD no se entiende muy bien, su resultado visible es la transformación de recursos en nuevas competencias funcionales (capacidades operativas) que se ajusten mejor al entorno.

Como ya hemos indicado, el enfoque de las CD es una extensión de la teoría basada en los recursos y capacidades (RBV) (Makadok, 2001). Mientras que la RBV hace hincapié en la recogida de recursos (Barney, 1991), el enfoque de las CD se centra en la renovación de los mismos a través de la reconfiguración en nuevas competencias funcionales (Teece et al., 1997).

Podríamos decir que la diferencia entre CD y competencia funcional o capacidad operativa, tiene especial relevancia. Por ello, definimos por un lado, competencia funcional o capacidad operativa como "combinaciones intencionadas de recursos que permiten llevar a cabo actividades operativas; por ejemplo, marketing o finanzas"; y, por otro lado, la capacidad dinámica sería la habilidad para renovar competencias funcionales.

Winter (2003) determina la diferencia indicando que las competencias funcionales son procesos de orden cero (Nivel 0), ya que tratan de llevar a cabo las mismas tareas rutinarias de siempre con las que la empresa se gana la vida, también denominadas tareas de explotación de los recursos y capacidades existentes. Con estas actividades la empresa genera recursos para poder repetir procesos como: compra, elaboración, venta, etc. Además de aquellas, existen las CD que serían procesos de primer orden (Nivel 1), y que implican un cambio. Ya sea cambio del producto, del proceso, de clientes, etc. Un ejemplo de capacidades de nivel 1 sería el desarrollo de un nuevo mercado al que atender adaptando la oferta de la empresa a las necesidades de dicho nuevo mercado. Estas actividades también podrían denominarse tareas de exploración o de búsqueda de nuevas combinaciones de recursos y capacidades.

2.5.3. Microfundamentos de las capacidades dinámicas

El enfoque de las CD determina que la creación y acumulación de riqueza en entornos de grandes turbulencias y cambios depende en gran medida de los procesos organizativos, tecnológicos y de gestión. Dicho de otro modo, identificar nuevas oportunidades, organizarlas efectivamente y adoptarlas es más relevante que la estrategia en sí, entendiendo la estrategia como la conducta para mantener alejados a los competidores, aumentar los costes de entrada y excluir a nuevos rivales potenciales.

En relación al enfoque de las CD, algunos autores (Helfat y Peteraf, 2009; Teece, 2009) han indicado que las empresas necesitan alinear sus recursos con las necesidades del mercado a través de la Percepción ("Sensing") de las oportunidades y amenazas, la Valoración ("Seizing") de las oportunidades y gestión de las amenazas y la Reconfiguración ("Reconfiguring") de recursos (Teece, 2007).

Desde nuestro punto de vista, la identificación de nuevas oportunidades la podríamos denominar tareas de Percibir ("Sensing"), a continuación habría que realizar un análisis interno para Ponderar y Valorar ("Seizing") la oportunidad, y finalmente habría que Reconfigurar los recursos ("Reconfiguring"), lo que implica el reordenamiento de los recursos de la empresa de manera que la nueva combinación aporte más valor a la misma.

Hay otros autores más recientes como Felin, Foss, Heimeriks y Madsen (2012) que destacan los microfundamentos de las rutinas y capacidades, y cómo son generadas a partir de tres elementos principales. Estos son: los individuos, los procesos y la estructura;

y que a partir de estos tres elementos primarios y sus interacciones, se pueden desarrollar rutinas y capacidades (Felin, Foss, Heimeriks y Madsen, 2012).

1.- Siguiendo a Helfat y Peteraf (2009) y Teece (2009), el primer grupo de actividades en el que las empresas necesitan centrarse son las actividades de percepción ("Sensing"), de manera que a partir de ellas se detectan nuevas oportunidades. Para ello, los directivos deben escanear, aprender e interpretar toda la información existente (Cohen y Levinthal, 1990). Estas tareas permitirán descubrir oportunidades latentes y crear nuevas oportunidades. Las empresas deberán incorporar estas tareas de forma intencionada y sistemática y no dejarlas al azar. Ahora más que nunca, los gestores necesitan encontrar la manera de comprender mejor la gran cantidad de información disponible. Por tanto, deberán filtrar e identificar la información relevante en la que focalizar su atención (Ocasio, 1997).

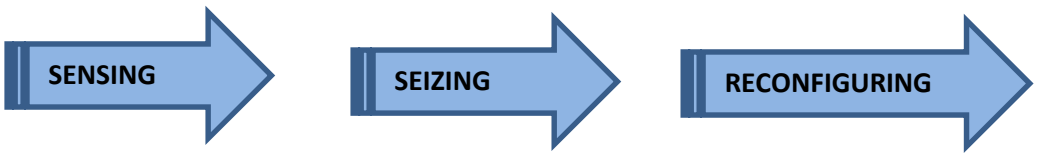
2.- Una vez detectada una nueva oportunidad, el paso siguiente es valorar la oportunidad ("Seizing"). Para ello, se requiere: determinar el modelo de negocio, comprender las necesidades de recursos, tomar decisiones para invertir en tecnología o en otros recursos, y que permitan a otros poder realizar los cambios apropiados. La investigación en este campo ha destacado que los procesos de toma de decisiones son complejos y que requieren de numerosas etapas (Cyert y March, 1963). Debido al hecho de que intervienen numerosas áreas funcionales, es necesario lograr una importante coordinación y gestión de las distintas actividades que afectan a estas diversas áreas funcionales, y también a las inversiones asociadas que deberán hacerse de manera simultánea, y no de forma

secuencial, sobre todo si las empresas están acortando los tiempos de comercialización de sus nuevos productos y servicios (Teece, 2007).

3.- Tras valorar la oportunidad, a continuación se hace necesaria la reconfiguración ("Reconfiguring") de recursos. Esto implica la reasignación de recursos de manera que la nueva combinación incremente el valor de la empresa. Esta reconfiguración confiere a la empresa la habilidad para adaptarse a los cambios del entorno, desechar las rutinas obsoletas, y permitir que se obtengan resultados crecientes y sostenibles. La reconfiguración se puede lograr a través de cambios en la estructura de las organizaciones, ajustes estratégicos en la gestión y esto supone lograrlo en base a la implantación de incentivos.

La innovación puede incrementarse a través de una estructura organizacional imprecisa que conduce a más actuación empresarial. El ajuste estratégico implica el reordenamiento de activos para incrementar el valor de la empresa. Los incentivos necesitan ser cuidadosamente diseñados con el fin de garantizar que los gestores y accionistas apoyen los esfuerzos de mejora de los resultados de la empresa.

Figura 1. Microfundamentos de las capacidades dinámicas



Fuente: Elaboración propia

Estos tres conjuntos de actividades, Percepción ("Sensing"), Valoración ("Seizing") y Reconfiguración ("Reconfiguring"), son muy importantes en el desarrollo de una CD. Sin embargo, describir estas actividades es sólo el primer paso. Para lograr una mayor comprensión hay que analizar cómo esos tres tipos de actividades contribuyen a las CD, y cómo estas actividades son necesarias para crear una CD.

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CAPÍTULO 3

"LINKING UNLEARNING WITH SERVICE QUALITY THROUGH LEARNING PROCESSES IN THE SPANISH BANKING INDUSTRY"

CAPÍTULO 3: LINKING UNLEARNING WITH SERVICE QUALITY THROUGH LEARNING PROCESSES IN THE SPANISH BANKING INDUSTRY

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ABSTRACT

Knowledge, like other resources, can quickly become obsolete. Thus, actors in an economy must constantly update their knowledge to keep pace with ongoing changes in their operational environment. This study explores unlearning's influence on two forms of learning (i.e., exploration and exploitation of knowledge). The study also adopts a dynamic management focus to analyze the influence of these two individual learning capabilities and their ability to help firms align technology knowledge and relational knowledge. This study reaches important conclusions on unlearning's role in knowledge management. The study examines learning processes and knowledge stocks (i.e., technology and relational knowledge) that practitioners (managers) within service firms generate through their relationships with customers. This study explores how an unlearning context can help service firms align learning processes (i.e., exploration and exploitation) through an empirical study of 150 managers in the Spanish banking industry.

Keywords: Relational knowledge; service firms; quality of service

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3.1. INTRODUCTION

The strategic management literature defines absorptive capacity (ACAP) as a firm's "ability to recognize the value of new information, assimilate, and apply that information to commercial ends" (Cohen & Levinthal, 1990). Kim (1998) defines absorptive capacity as the learning ability and problem-solving skills that enable firms to assimilate knowledge and create new knowledge. Absorptive capacity is a function of the organization's existing resources, existing tacit and explicit knowledge, internal routines, management competences, and culture (Gray, 2006). Absorptive capacity results from a prolonged process of knowledge accumulation in conjunction with a strong ability to recognize and appreciate new valuable knowledge to produce more innovations.

Some scholars use the idea of knowledge assimilation or creation to characterize how prior knowledge may pave the way for future opportunities (Shane, 2000). Thus, knowledge creation and learning processes map out a path toward assimilating and deploying knowledge (Short, Ketchen, Shook, & Ireland, 2009). Consequently, these learning processes have a close relation with Zahra and George's (2002) notion of ACAP, and more specifically, to the realized absorptive capacity dimension (RACAP). RACAP refers to a firm's capacity to develop and refine the routines that facilitate the combining of existing knowledge and newly acquired and assimilated knowledge (Zahra & George, 2002). An exploitation capability supplements this transformation capability in RACAP. The exploitation capability refers to a firm's capacity to deploy the newly acquired knowledge in products or services. Doing so helps firms to improve their product/service

offers, improve organizational procedures and processes, and ultimately achieve a financial profit.

Two classical dimensions define the ACAP term. Whereas the term potential absorptive capacity (PACAP) commonly refers to the capacity to acquire and assimilate knowledge, RACAP covers transformation and exploitation capabilities. “Transformation denotes a firm’s capability to develop and refine the routines that facilitate combining existing knowledge and the newly acquired and assimilated knowledge” (Zahra & George 2002, p. 190). Transformation thus involves inventing new interpretations of existing knowledge, adding new knowledge, and deleting pieces of old knowledge. Exploitation refers to “a firm’s ability to harvest and incorporate knowledge into its operations” (Zahra & George 2002, p. 190). RACAP reflects the firm’s capacity to leverage absorbed knowledge and transform this knowledge into an innovation outcome such as new goods and services (Fosfuri & Tribó, 2008; Purvis, Sambamurthy, & Zmud, 2001).

Unlearning helps managers to reorient organizational values, norms, and behaviors by changing cognitive structures, mental models, dominant logics, and core assumptions that guide behavior (Cepeda, Cegarra, & Jimenez, 2012).Firms can thereby use unlearning to gain competitive. Thus, unlearning contributes by laying the foundation to improve quality. As Cepeda et al. (2012) point out, to sustain quality in a dynamic environment, firms must be able to renew their knowledge bases. Consequently, organizations should create an internal context where they can value and combine the newly generated knowledge from firm–customer interactions (relational) and technology with existing knowledge to provide better services. This study analyzes these knowledge processes.

Thus, the study's contribution consists of analyzing the relationship between unlearning and core knowledge processes in the specific service domain (banking) so that these firms can improve the financial services they provide. The following sections of the study present the concepts of technology and relational knowledge. These concepts enable the linking of knowledge stocks to quality improvement capacity in the Spanish banking industry.

3.2. CONCEPTUAL FRAMEWORK

Organizations possess stocks of knowledge. These knowledge stocks represent knowledge within people and machines. Hence, this study's conceptual framework uses concepts such as relational knowledge and technology knowledge.

In this study, relational knowledge refers to the knowledge arising from a manager's relationship with his or her customers (Cepeda-Carrión, Cegarra, Martinez Caro, & Eldridge, 2011). Relational knowledge consists of the acquisition of knowledge from internal experience and from hours of experience in customer–manager relationships. Relational knowledge may take shape through an interpretation of the current situation and/or physical environment, which may be ambiguous, inconsistent, or complex. Managers may read these interpretations differently, which results in contradictory actions and misunderstandings. Relational knowledge may come from ostensibly unreliable sources that are in fact trustworthy. The recipient may ignore or internally

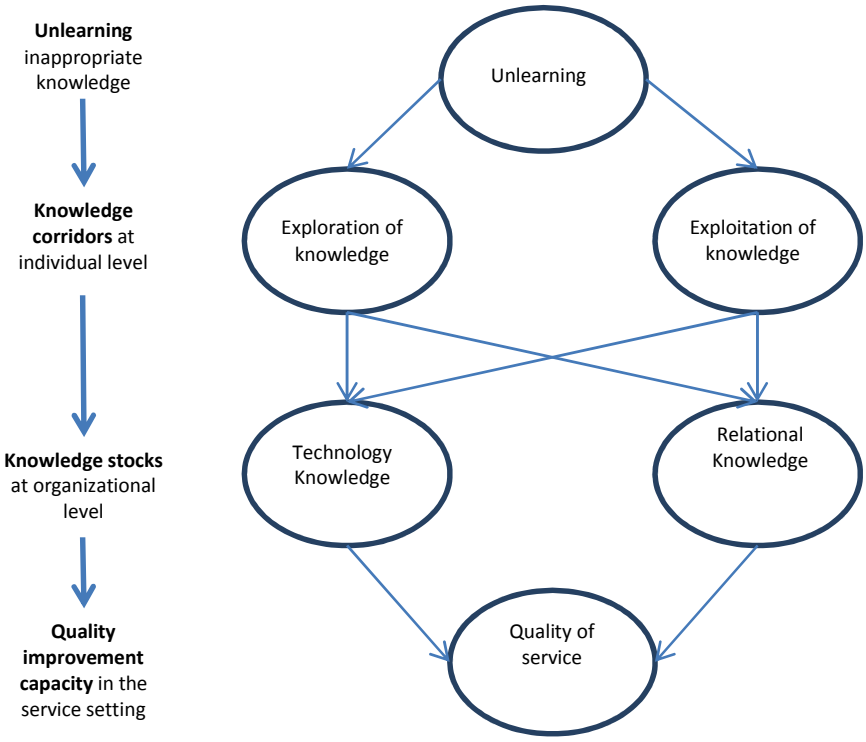
readjust this knowledge. This reaction from the recipient may be the result of personal reasons such as personality differences or a lack of trust.

Designating a correct source as unreliable may also be the result of fixed and predetermined ideas. Alternatively, managers may draw the same incorrect conclusions and then make decisions assuming, incorrectly, that others possess the same knowledge.

Technology knowledge (t-knowledge) refers to a fuzzy set of skills—including information resources—that enable better use of technologies. T-knowledge arises from, and resides in, human activity (Herschbach, 1995), as Landies (1980) observes. While the intellectual factor is at the heart of the technological process, the process itself consists of "the acquisition and application of a corpus of knowledge concerning technique, that is, ways of doing things" (1980: p. 111). T-knowledge potentially provides technology users with the right answer in the right place at the right time (Cegarra, Cepeda, Martínez, & Salmador, 2011). For information communication technologies (ICT), the answer covers knowledge of operating systems and computer hardware and the ability to install and remove peripheral devices, install and remove software programs, and create and archive documents (Nohria & Gulati, 1996; Sharma, 2000; Szulanski, 1996).

Figure 1 provides a synopsis of the previous arguments. This study examines the combination of factors that facilitate exploration and exploitation capabilities in knowledge creation. At the individual level, exploration and exploitation capabilities occur simultaneously and recursively and together constitute knowledge creation (Zahra & George, 2002).

Figure 1. The proposed research model



3.2.1. Linking unlearning to types of learning

Researchers report that service personnel are likely to feel the burden of outdated knowledge (Gideon, Ward, Brennan, Coconis, Board, & Brown, 1999; Kadushin, 2004; Kadushin& Egan, 2001; Madigan & Tullai-McGuinness, 2004; Rushmer & Davies, 2004; Wilson, 1988). The existence of inappropriate knowledge influences the types of organizational learning available to firm members. Inappropriate knowledge causes members to share inappropriate assumptions about inappropriate routines. Furthermore, organizational members may adopt inappropriate approaches to scanning the business

environment and may make mistakes when defining, meeting, and bringing ideas to fruition by introducing new services.

In light of the previous arguments, unlearning is an important trigger of a destabilization process in working environments. This process of destabilization and subsequent reconsolidation may be a means by which individuals update or modify established memories (knowledge). For example, unlearning may reveal managerial problems that employees may not want to express directly, such as excessively authoritarian managerial styles, lack of trust, and other dysfunctional aspects of an organization. Importantly, most prior organizational research describes unlearning as the result of some form of old learning's destabilization (Akgun, Lynn, & Byrne, 2006; Lee & Sukoco, 2011). Thus, the appropriateness and effectiveness of the types of organizational learning that service managers perceive depends on their ability and willingness to counteract the negative effects of inappropriate knowledge and combine prior knowledge (with appropriate adjustments for obsolete or inaccurate knowledge) with new knowledge. This leads to the proposition that the creation of an unlearning context in an organization enhances the ability and willingness of managers to engage in these learning activities.

Obviously, knowledge arising in a specific context (e.g., within a unit or department) is not necessarily unsuitable for jobs in different working environments. From this perspective, inappropriate knowledge could reveal potentially useful information about how the service firm and the firm members operate. For example, outdated knowledge is useful for conveying information to others, exerting a social influence, and entertaining (Cegarra & Cepeda, 2010; Cegarra et al., 2011). Outdated knowledge can create doubts

about the efficacy and appropriateness of some individuals' mental models regarding organizational culture and organizational routines. In these circumstances, unlearning is an important trigger that destabilizes working environments. This process of destabilization and subsequent reconsolidation may update or modify established memories (knowledge). From this perspective, the existence of an unlearning context apparently provides support for managing an appropriate balance between exploration and exploitation of knowledge.

As in previous research (Carlson, Upton, & Reaman, 2006; Van der Bent, Paauwe, & Williams, 1999), this study attempts to show that for a given organization, knowledge (both external and internal to the organization) requires critical examination because of its potential relevance. As the previous discussion indicates, to obtain an updated view of a new knowledge structure and to understand its effects, managers have to examine the phenomenon from a number of different angles. If managers undiscriminatingly rely on internal knowledge, they are likely to become less creative (Sinkula, Baker, & Noordewier, 1997).

H1: Unlearning has a positive association with exploitation of knowledge.

H2: Unlearning has a positive association with exploration of knowledge.

3.2.2. Linking types of learning to technology and relational knowledge

T-knowledge may include previous experience on installing and removing peripheral devices, and this experience may later influence the skills that individuals find necessary to operate certain technologies. Nonetheless, activity is what defines relational knowledge's drivers (e.g., trust, shared values, perspectives about business and life, and available time). Likewise, activity establishes and orders the framework where employees use technology (Herschbach, 1995).

A key question is whether the actions of exploring knowledge and exploiting knowledge directly affect relational knowledge and t-knowledge. In this regard, service firms that have developed a strong culture may also be good at transferring, transforming, and updating knowledge, as well as modifying behavior to reflect new knowledge and insight (Garvin, 1993; Huber, 1991). From this perspective, organizational members placing emphasis on new knowledge structures (i.e., relational knowledge and t-knowledge) must first acquire information, assimilate this information, and transform this knowledge into new knowledge structures. In addition, exploration and exploitation involve both individual and organizational changes, so questioning the way of modeling the change process is useful. Furthermore, organizational learning may also stimulate knowledge application, which improves the accuracy of answers and customers' knowledge about the service on offer.

Consequently, achieving relational knowledge and t-knowledge requires the cooperation and involvement of the whole organization to make exploration and exploitation the initial steps towards new knowledge structures. Exploration and exploitation are management tools for achieving management goals. Managers, however, are not the only

organizational members who need to think about how to achieve these goals or how to function differently.

H3: Exploration of knowledge has a positive association with relational knowledge.

H4: Exploration of knowledge has a positive association with t-knowledge.

H5: Exploitation of knowledge has a positive association with relational knowledge.

H6: Exploitation of knowledge has a positive association with t-knowledge.

3.2.3. Linking technology and relational knowledge to service quality

A considerable body of literature focuses on the relationship between knowledge and quality of service. In this regard, relational knowledge and t-knowledge are central to service firms' practice (Cepeda-Carrión et al., 2011). When managers possess good relational knowledge, they always choose to maintain a professional rapport with customers, uphold customers' dignity, and respect customers' privacy. Managers with poor relational knowledge, in contrast, have a weaker ability to comprehensively assess clients' circumstances. Thus, customers are more likely to distrust the service and proposed solution, leading to a lower degree of compliance to follow experts' advice. Regarding t-knowledge, this study follows the suggestion of Mort, May, and Williams (2003), who claim that t-knowledge can reduce the duplication of services and overhead costs of providing them.

The above considerations also imply that relational knowledge and t-knowledge allow service firm members to gain a much deeper insight and to make better decisions. Mort et al. (2003) report that t-knowledge helps reduce customers' isolation by facilitating peer contact for both manager consultations and continuing education. For example, when service firm members use a technology system to maintain close relations with customers, they gain a powerful position. They gain such a position because they can exercise some control over data and information that they provide about themselves and they decide whether to engage in the relationship in the first place. Simultaneous, recursive, and joint use of relational knowledge and t-knowledge allows service firm members to deal with customers systematically (Lockamy & Smith, 2009), which in turn leads to better customer service and a higher level of perceived quality (Asubonteng, McCleary, & Swan, 1996).

H7: Relational knowledge has a positive association with perceived quality of service.

H8: T-knowledge has a positive association with perceived quality of service.

3.3. METHOD

3.3.1. Data collection

The Spanish banking industry is an appropriate context in which to empirically test the research hypotheses. The banking sector is suitable because banking activities demonstrate learning capabilities. Banking is a highly knowledge-intensive industry and

is therefore appropriate for identifying, analyzing, and evaluating different learning processes. The increasingly intense competition within this industry is forcing banks to seek new ways of leveraging their organizational knowledge. In addition to the competition within the industry, the relative intangibility of their products and services prompts the need to capture and retain customers by offering something extra and building a strong relationship.

The current crisis in the financial services industry is highly significant. Numerous banking takeovers and capitalizations are happening, with the number of company mergers (as a rescue measure, specifically in Spain) multiplying and the volume of crashes increasing. The full extent of this crisis remains unknown because of the unusually high speed at which key events have developed and enormous changes have occurred within a short time span, predominantly following the crash of Lehman Brothers in September 2008. The total number of banks operating in Spain at the time of the study (i.e., 2013) was 15, whereas just three years previously (2010) the sector comprised 110 entities.

Two main reasons led to the choice of the Spanish banking domain as a target for study. First, the necessity for intimacy between service providers (branch office managers) and customers in their commercial relationships is a critical motive for selecting this study sample, especially in Spain. Banking is a trust-based service, and these relationships endure. Second, the banking service is an ideal platform for learning because two or more individuals often work together with different resources and complementary capacities, which are learning facilitator factors (Fenwick, 2007).

The 15 banks met the requirements of the study (i.e., banks serving the public). Data collection followed a snowball sampling method with key respondent methodology, in accordance with the suggestions of an expert panel consisting of 15 eminent academics and 10 general bank managers. The unit of analysis is branch office managers from the 15 banks operating in Spain in 2013. Surveying took place from September 2013 to November 2013. In total, 200 branch office managers received telephone invitations to participate in the study, a process that yielded 152 questionnaires. Two of these questionnaires were unsatisfactory, so they do not appear in the final sample. Analysis therefore draws on data from 150 valid questionnaires.

3.3.2. Measures

The questionnaire design draws on the previous literature review. The unlearning context construct is a formative second-order construct. Three first-order factors or dimensions assess the unlearning context. These dimensions are consolidation of emergent understandings, the examination of lens fitting, and the framework for changing individual habits. A question that arises when taking a multidimensional approach (i.e., using second-order measures) is whether the model should represent these constructs as reflective or formative indicators. Indeed, understanding the construct's underlying essence, whether reflective (i.e., changes in the underlying construct cause changes in the indicators) or formative (i.e., indicators affect or cause the underlying construct), is an essential first step in modeling its structure (MacKenzie, Podsakoff, & Jarvis, 2005). Consequently, the choice depends primarily on whether researchers view the first-order

factors or dimensions as indicators or causes of the second-order factor (Chin, 1998). The study adopts a formative view of this structure for the second-order construct. Thus, an increase in any dimension's level does not imply an increase in other dimensions' levels. The dimensions do not necessarily correlate; consequently, traditional reliability and validity assessments are inappropriate and illogical for a formative second-order factor with reference to its dimensions (Bollen, 1989). Measurement of the other four constructs (i.e., exploration of knowledge, exploitation of knowledge, technology knowledge, and quality of services) uses reflective indicators. Finally, modeling of the relational knowledge construct adopts a reflective second-order construct comprising two dimensions.

This study mainly employs existing scales from the literature. The questionnaire constructs comprise the following concepts. To examine the two constructs of organizational learning (exploration and exploitation of knowledge) the methodology draws on the pre-defined dimensions of absorptive capacity (Zahra & George, 2002). Measurement employs a seven-point Likert scale from the study by Jansen, Van den Bosch, and Volberda (2005). This study works with two dimensions from this scale: acquisition and assimilation of new external knowledge. Six items assess effort intensity and direction in knowledge acquisition. In addition, four items measure exploitation and gauge the extent to which firms are able to analyze and understand new external knowledge. Ultimately, after a data cleansing process, three items form the exploration scale, and three items compose the exploitation scale.

To examine technology knowledge, the methodology draws on the pre-defined dimensions for technology slack (Szulanski, 1996; Sharma, 2000; Nohria & Gulati, 1996). Measurement of items uses a seven-point Likert scale. Technology knowledge consists of four items. Relational knowledge includes transformation and exploitation of knowledge as two reflective dimensions (Zahra &George, 2002). Item measurement uses a seven-point Likert scale from the study by Jansen et al. (2005). Twelve items initially assess how far managers can facilitate recognition of opportunities and consequences of customer knowledge for existing protocols, processes, and policies (Zahra &George, 2002). The scale gauges the managers' ability to incorporate customer knowledge into their operations. The final scale consists of three items for each dimension.

As per the previous discussion, the unlearning context comprises three dimensions: consolidation of emergent understandings, the examination of lens fitting, and the framework for changing individual habits. The measures relating to consolidating emergent understandings consist of six items from a scale by Cegarra and Sanchez (2008), adapted from Akgün, Byrne, Lynn, and Keskin (2007). These items describe the way management faces change, actively introduces change into the company through projects, collaborates with other members of the organization, and recognizes the value of new information or risk taking. The measurement of the examination of lens fitting uses five items. These items recognize the support of policies, rules, reporting, structures, and decision-making protocols that encourage the identification of problems, mistakes, and new ways of doing things. Finally, measurement of the framework for changing

individual habits uses seven items. This scale focuses on employees' awareness of their mistakes, ways of thinking, and wrong behaviors in everyday attitudes.

The quality of service scale consists of nine items from Powell (1998). Research shows that quality of service's perceived measures can be a reasonable substitute for objective measures of performance and have a significant correlation with these objective measures (Hansen & Wernerfelt, 1989; Geringer & Hebert, 1989; Venkatraman & Ramanujam, 1987). Although self-report scales receive criticism, subjective scales have their own merits since objective indicators cannot achieve a high level of specificity in terms of industry, time horizon, and conditions in banking services.

3.3.3. Data analysis

Partial least squares (PLS) is an appropriate data analysis technique for this study because of the model and sample data characteristics. The model uses formative indicators, and data follow a non-normal distribution. Other structural equation modeling techniques (e.g., covariance-based models in LISREL or AMOS) are inapplicable in these circumstances (Diamantopoulos & Winklhofer, 2001). This study uses SmartPLS 2.0 to perform the analysis (Ringle, Wende, & Will, 2005). PLS methodology follows a two-stage approach (Barclay Higginns & Thompson, 1995).

The first step requires assessment of the measurement model. This analysis relates to the attributes of individual item reliability, construct reliability, average variance extracted (AVE), and discriminant validity of latent variable indicators. The second step evaluates

the structural model. The objective is to test the consistency of causal relationships in the model with empirical data. The bootstrapping procedure (Chin, 1998) enables testing of research hypotheses.

Analysis of the relationships between the different constructs and their indicators entails applying the latent model perspective, which models the latent variable as the indicator´s cause. Indicators are therefore reflective for first-order constructs or dimensions, except for the unlearning context construct, which feeds into the model as a second-order formative construct.

With regard to the measurement model, the first step is to assess individual item reliability (Table 1). All indicators except two (p9_5; p15_12) exceed the threshold of 0.70 for each factor loading (Carmines & Zeller, 1979). Because PLS is a predictive and exploratory technique, however, these indicators' failure to exceed the threshold does not compromise the reliability of this study's measurement model as long as the other reliability scores exceed the threshold (Chin, 1998).

Table 1. Factor loadings of reflective constructs

	Exploration of knowledge	Exploitation of knowledge	Relational knowledge	Quality of service	Technology knowledge	Unlearning
P9_1	**0.80**	0.63	0.47	0.39	0.50	0.52
P9_3	**0.76**	0.33	0.46	0.27	0.39	0.44
P9_5	**0.65**	0.40	0.39	0.23	0.34	0.32
P9_8	0.63	**0.94**	0.60	0.50	0.55	0.61
P9_9	0.61	**0.95**	0.48	0.45	0.47	0.55
P9_10	0.53	**0.94**	0.47	0.39	0.45	0.58
Transformation	0.56	0.51	**0.93**	0.52	0.61	0.56
Link Exploitation	0.54	0.51	**0.93**	0.52	0.59	0.59
P15_1	0.19	0.23	0.31	**0.77**	0.38	0.39

P15_2	0.39	0.39	0.48	**0.78**	0.42	0.38
P15_3	0.21	0.30	0.34	**0.75**	0.39	0.39
P15_5	0.42	0.42	0.49	**0.74**	0.47	0.43
P15_6	0.27	0.35	0.38	**0.72**	0.37	0.44
P15_8	0.28	0.33	0.48	**0.73**	0.44	0.42
P15_9	0.32	0.35	0.46	**0.78**	0.34	0.43
P15_10	0.27	0.37	0.42	**0.78**	0.32	0.52
P15_12	0.34	0.41	0.34	**0.68**	0.25	0.46
P8_1	0.48	0.42	0.58	0.47	**0.91**	0.47
P8_2	0.47	0.48	0.53	0.42	**0.94**	0.47
P8_3	0.51	0.44	0.55	0.40	**0.93**	0.46
P8_4	0.57	0.54	0.65	0.55	**0.87**	0.65
CEU	0.54	0.52	0.60	0.54	0.52	**0.89**
CIH	0.52	0.57	0.51	0.48	0.45	**0.89**
ELF	0.44	0.51	0.48	0.43	0.50	**0.80**

Results in Table 2 imply that all constructs are reliable. Values for both Cronbach's alpha and for composite reliability are greater than 0.7 (required in the early stages of research) and the stricter value of 0.8 (required for basic research) (Nunnally, 1978). The AVE should be greater than 0.5, meaning that the construct accounts for 50% or more of the indicators' variance (Fornell & Larcker, 1981). All constructs in the model exceed this condition (Table 2). A comparison of the AVE's square root (i.e., the diagonal elements in Table 2) with the correlations between constructs (i.e., the off-diagonal elements in Table 2) tests for discriminant validity. On average, each construct relates more strongly to its own measures than to others.

Table 2. Descriptive Statistics and Correlation Matrix

	Mean[a]	SD	CR	CA	AVE	1	2	3	4	5	6	7	8	9
1. Exploration of knowledge	5.67	1.21	0.77	0.78	0.55	0.74								
2. Exploitation of knowledge	5.43	1.23	0.96	0.94	0.88	0.63	0.94							
3. Consolidation of emergent u…[b]	5.71	1.31	0.93	0.92	0.74	0.54	0.53	0.86						
4. The framework for changing i…[b]	5.44	1.11	0.96	0.95	0.78	0.52	0.57	0.68	0.88					
5. The examination of lens fitting[b]	6.14	0.91	0.91	0.86	0.67	0.43	0.51	0.53	0.53	0.82				
6. Link exploitation[b]	5.41	1.22	0.86	0.74	0.67	0.55	0.51	0.54	0.52	0.42	0.82			
7. Quality of service	4.76	1.34	0.92	0.91	0.59	0.42	0.47	0.54	0.56	0.41	0.53	0.76		
8. Technology Knowledge	5.25	1.32	0.95	0.94	0.81	0.53	0.53	0.53	0.45	0.50	0.57	0.53	0.90	
9. Transformation[b]	5.38	1.25	0.85	0.73	0.66	0.56	0.52	0.53	0.43	0.48	0.60	0.51	0.62	0.81

Notes: a Mean = the average score for all of the items included in this measure; S.D. = standard deviation; CA = Cronbach's alpha; CR = composite reliability; AVE = average variance extracted. bThey represent the dimensions of the second-order construct. Diagonal entries are the square root of the average variance extracted. Off-diagonal elements are correlations among constructs.

Evaluation of formative dimensions of the high-order construct unlearning context differs from the evaluation of unlearning context's reflective dimensions. The appropriate procedure for formative dimensions is an examination of weights (Mathieson, Peacock, & Chin, 2001), which is a canonical correlation analysis that provides information about how each indicator contributes to its construct (see Table 3). Weights need not exceed any particular benchmark because a census of indicators is necessary for a formative specification (Diamantopoulos & Winklhofer, 2001). The concern with formative dimensions is multicollinearity with overlapping dimensions, which may produce unstable estimates (Mathieson et al., 2001). Results of a collinearity test show that the variance inflation factor (VIF) scores for the second-order construct for three dimensions

are below the standard cut-off of 3.3. In addition, data meet Fornell and Larcker's requirements (1981) for testing the formative dimensions' validity.

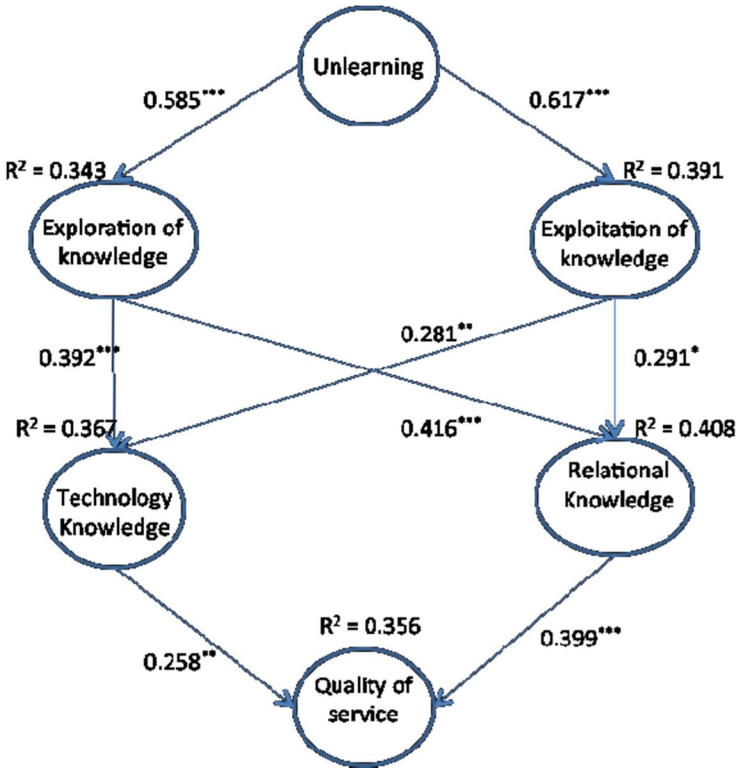
Table 3. Weights of formative constructs

High order constructs and their dimensions	Weights	Student's t
Unlearning Context		
Consolidation of emergent understandings (CEU)	0.47	5.79
The examination of lens fitting (ELF)	0.25	3.47
The framework for changing individual habits (CIH)	0.56	6.45

3.4. RESULTS

Figure 2 presents a summary of the structural model resulting from the PLS analysis, showing the explained variance of endogenous variables (R^2) and the standardized path coefficients (β). All the relationships in the research hypotheses are significant, thereby supporting the hypotheses. Significance testing and modeling employs traditional parameter-based techniques (Chin, 1998) because PLS makes no distributional assumptions in its parameter estimation. One consequence of the comparison between covariance structural modeling approaches and PLS is that no proper overall goodness-of-fit measures exist for models using PLS (Hulland, 1999). Evaluation of the structural model depends on examining the R^2 values and the size of the structural path coefficients.

Figure 2. Estimated causal relationships in the structural model



*p < .05; **p < .01; ***p < .001 (based on t(4999), one-tailed test)

The t-statistics from a bootstrap test with 5000 resamples test the stability of the path coefficient estimates. Table 4 shows model statistics, path coefficients, and t values corresponding to the level of significance from the bootstrap test.

Table 4. Model statistics

Model Paths	Path coefficients	t values	R^2
Unlearning -> Exploration of knowledge	0.585	12.33	0.34
Unlearning -> Exploitation of knowledge	0.617	9.79	0.39
Exploration of knowledge -> Relational knowledge	0.416	3.88	0.41
Exploration of knowledge -> Technology knowledge	0.392	3.66	0.37
Exploitation of knowledge -> Relational knowledge	0.291	1.78	0.41

Exploitation of knowledge -> Technology Knowledge	0.281	2.79	0.37
Relational knowledge -> Quality of service	0.399	4.15	0.36
Technology knowledge -> Quality of service	0.258	3.07	0.36

***p < .001. **p < .01. *p < .05. ns = not significant (based on a Student t (4999) distribution with one tail). t(0.05. 4999) = 1.645158499. t(0.01. 4999) = 2.327094067. t(0.001. 4999) = 3.091863446

Calculating the significance of the indirect path (which goes from the exploration and exploitation constructs to quality of service) provides a means of checking for the presence of indirect effects. This indirect path passes via relational knowledge and technology knowledge. Table 5 shows results of indirect effects and their significance (percentile bootstrap 95% confidence interval). Analysis shows that results support all indirect effects. The fact that all indirect paths are significant means that exploration and exploitation of knowledge have an indirect effect on quality of services through both relational knowledge and technology knowledge.

Table 5. Indirect effect statistics

Indirect effects of exploration and exploitation of knowledge on quality of service	Point estimate	Percentile bootstrap 95% confidence interval	
		Lower	Upper
Exploration-RK-QS	0.166	0.076	0.256
Exploration-TK-QS	0.101	0.019	0.192
Exploitation-RK-QS	0.116	0.009	0.288
Exploitation-TK-QS	0.072	0.007	0.163

RK: relational knowledge; TK: technology knowledge; QS: quality of service

Therefore, the results support the model. In other words, all antecedent variables, some of them directly (i.e., relational knowledge and technology knowledge) and others

indirectly (i.e., exploration of knowledge and exploitation of knowledge), are the best way to explain the dependent variable variance (i.e., quality of service).

3.5. DISCUSSION

Through an empirical study of 150 branch offices in the Spanish banking sector, this study examines how an unlearning context can help service firms align technology and relational knowledge. The study untangles the concept of knowledge and organizational learning by illustrating the processes behind the development of an organizational context.

The study's first contribution is to stress that service firms may be investing too heavily in the adoption of knowledge through exploration processes and investing too little in mechanisms to facilitate the unlearning of inappropriate knowledge. Regarding this finding, firms that consider the flow of knowledge creation as a linear process (i.e., unlearning → organizational learning→ knowledge stock → knowledge use) can expect to achieve higher levels of quality in their services. Consequently, when establishing banking services, managers should encourage employees to unlearn knowledge rapidly as a first step and use new knowledge structures effectively as a second step.

The second contribution of this study relates to the results of the hypothesis testing. Findings suggest that the two types of learning (i.e., exploration and exploitation) are important, albeit not enough to create technology and relational knowledge. The significant positive association between the unlearning context and the framework for

consolidating emergent understandings indicates that managers need to provide critical input to implementing a new technology. Managers should critically appraise proposals to implement new technologies, suggesting solutions and allowing experts to observe and intervene in discussions.

This study has some limitations. First, results provide only a snapshot of ongoing processes rather than measures of the same process over time. Second, although drawing on relevant, valid scales from the literature ensures that the constructs' definition is as precise as possible, the constructs can realistically act only as proxies for an underlying latent phenomenon that is itself only partially measurable. Third, the model in this study is general and fails to capture the possible moderating effects of environmental turbulence and uncertainty. Prior research shows that the effect of cognitive factors on individual, group, and organizational performance can vary substantially with environmental conditions.

3.6. CONCLUSIONS

In summary, this study establishes important conclusions about unlearning's role in knowledge creation (organizational learning). The study considers learning forms and knowledge stocks (i.e., technology and relational knowledge) that bank managers generate through their relationships with customers. The results support the view that to create technology and relational knowledge and hence foster the adoption of new practices, banks must build and foster an unlearning context. One interpretation of this

relationship is that through the unlearning context, banks allow individuals to adjust their mental models and the nature of the assumptions they share to break with current workplace culture. Managers need to create a context of continuous unlearning because old, outdated knowledge can impede adaptation to new configurations.

The considerations in the previous discussion lead to the argument that technology and relational knowledge allow banking firms to enhance service quality. This finding is important because the potential for any service firm to preserve and maintain the quality of its services greatly depends on its ability to acquire and assimilate new ideas. Managers may therefore find themselves trapped in a suboptimal stable equilibrium. Many overloaded managers may be investing too heavily in the development of technological breakthroughs, while preserving old beliefs and traditions. Results also reveal a positive association between technology creation, relational knowledge, and perceived service quality. New knowledge structures provide support to customer responsiveness and action. Knowledge structures provide support by retaining a broader range of potential responses. Therefore, they allow customers to capitalize on the broad variety that these new knowledge structures offer.

The financial sector, and more specifically the banking industry, is undergoing radical changes that are presenting serious challenges for banks to overcome the current financial crisis. Despite opportunities for the financial (and banking) industry to implement strategic management on the basis of knowledge, very few banks actually demonstrate a willingness to use their technology and relational knowledge. The results of this study

should encourage banks to reconsider learning and knowledge, take advantage of these assets, and improve the services they offer their customers.

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CAPÍTULO 4

"ABSORPTIVE CAPACITY AND VALUE IN THE BANKING INDUSTRY: A MULTIPLE MEDIATION MODEL"

CAPÍTULO 4: ABSORPTIVE CAPACITY AND VALUE IN THE BANKING INDUSTRY: A MULTIPLE MEDIATION MODEL

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ABSTRACT

Firms continually look new ways to get the best results. This study focuses on the relationship between absorptive capacity (ACAP) and value, proposing a multiple mediation model to analyze this relationship. The study's contribution to the literature is to examine empirically, and in greater depth the antecedents and determinants of this variable. Thus, the research fills a gap in the literature through the analysis of the mediating role of knowledge stock (KS) and knowledge application (KA). This study applies variance-based structural equation modeling via partial least squares to a sample

of 151branch office managers from the Spanish banking industry. The results show that both the direct effect and indirect effect, through the mediation of KS and KA, are significant in the relationship between ACAP and value.

Keywords: Absorptive capacity; value; banking industry; knowledge management.

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4.1. INTRODUCTION

The Spanish banking industry (SBI) is a highly knowledge-intensive sector and is therefore appropriate for identifying, analyzing, and evaluating different learning processes. The increasingly intense competition within this industry is forcing banks to recognize the need to seek new ways of leveraging their organizational knowledge. In addition to the competition within the industry, the relative intangibility of their products and services prompts the need to capture and retain customers by offering them something extra, and building a strong relationship.

Furthermore, the complex competitive environment in which banking firms operate leads to an increase in the demand for superior value (Sánchez et al., 2009). Therefore, more and more firms see value as a key factor when looking for new ways to achieve and maintain a competitive advantage (Woodruff, 1997).

In this article, a reference to value means the firm's outcomes in relation to their stakeholders (i.e., their internal customers or employees and their external customers). A firm's external and internal organizational capabilities are vital for increasing that value. Thus, a firm should focus on improving those capabilities that view customers (both internal and external ones) as a key component, to maximize and then absorb the value created (Martelo-Landroguez et al., 2011).

Although most of the literature refers to value creation, understanding value from the perspective of the value of the stakeholders for the firm also receives attention from researchers (Payne & Holt, 2001). This stream of research focuses on the value of the

stakeholders for the firm. Therefore, the focus is not only on the creation of value for the stakeholders but also on the value outcome that can derive from delivering superior value by managing knowledge.

In the SBI, new products and processes demand new competencies, or at least a new combination of competencies. These new skills and capabilities are requirements for creating new products or launching new services, and are the likely results of the acquisition, assimilation, and exploitation of new knowledge. This idea is what Cohen and Levinthal (1990) refer to as absorptive capacity (ACAP). These authors state that ACAP is a result of individual skills, prior knowledge, firm-specific competencies (i.e., internal capabilities), and access to knowledge sources outside the firm; that is, external linkages (Leal-Rodríguez et al., 2013). Thus, managers need a framework to facilitate the influence of several knowledge management (KM) aspects (e.g., ACAP, knowledge stock- KS, and knowledge application - KA) on the firm's value. Nevertheless, a gap exists in the literature concerning this issue. No study reports an empirical test of the links between ACAP, KM processes, and their consequence on value.

This study addresses the gap in the literature by focusing on the link between a firm's ACAP and value operating two ways: researching, on the one hand, the direct effect between ACAP and value; and, on the other hand, the indirect effect considering the multiple mediating role of another two processes of KM: KS and KA. The specific research question is: Does ACAP by itself affect value, or does it need other capabilities in order to jointly facilitate firm's appropriation of the value created?

4.2. THEORETICAL BACKGROUND AND RESEARCH HYPOTHESES

4.2.1. The relationship between absorptive capacity and value

Cohen and Levinthal (1990, p. 128) initially define ACAP as "the ability of recognizing new external knowledge, assimilating and applying it to commercial ends." Therefore, this concept refers to a key element within the organizational learning process. These authors also suggest that this capability is critical for any firm that seeks the attainment of sustainable competitive advantage, business performance, or innovative results. Cohen and Levinthal (1990) also suggest that ACAP depends largely on the level of prior knowledge that the firm already possesses.

Although extensive literature concerning ACAP exists, this topic only arouses significant interest in the academic community in light of Zahra and George's (2002) reconceptualization. The roots of this reconceptualization lie in the distinction between potential absorptive capacity (PACAP) and realized absorptive capacity (RACAP).

The present work draws on Zahra and George's (2002) view, which suggests that ACAP encompasses four distinct but complementary capabilities: acquisition, assimilation, transformation, and exploitation. According to Barney (1991), the conjunction of different capabilities leads firms to achieve superior performance, which frequently results in competitive advantage.

In accordance with this theory, PACAP and RACAP encompass different capabilities. PACAP involves acquisition and assimilation capabilities. This capacity makes the firm open to the acquisition and assimilation of external knowledge (Lane & Lubatkin, 1998). PACAP captures a firm's capacity to evaluate and acquire external knowledge (mainly from market, competitors, and external customers). Nevertheless, this capacity does not always lead to knowledge exploitation (an internal customer issue or view). Conversely, RACAP deals with the capabilities of transforming and exploiting. PACAP and RACAP are essentially distinct concepts, and consequently may draw on different structures, objectives, and strategies (Leal-Rodríguez et al., 2014).

Jansen et al. (2003) develop a new model drawing on a model Van den Bosch et al. (1999) propose, and on the inclusion of some of the improvements Zahra and George (2002) provide. On the one hand, three different capabilities—coordination, system, and socialization capabilities—are the antecedents of ACAP in this model. On the other hand, the model of ACAP is an antecedent of the firm's adaptation and performance.

Similarly, several studies posit a relationship between the firm's ACAP and performance. Fiol (1996) argues that the potential of organizations to generate and capture the benefits of their innovation outcomes depends on the previous accumulation of knowledge. The emergence of KM therefore enhances the reciprocity between innovation and knowledge in the sense that innovative efforts are a result of the firm's endeavor and investment in knowledge and knowledge workers. Similarly, outcomes from innovation processes in terms of new products and processes contribute to create new knowledge. They contribute by developing a set of capabilities that extract benefits deriving from value creation

(Prajogo & Ahmed, 2006). Ensuring the sharing of relevant knowledge among organizational members is crucial to effectively absorb and exploit knowledge (Spender, 1996). This result provides a better comprehension and mutual understanding (Garvin, 1993).

Several studies propose that the ability to exploit effectively external knowledge is a critical factor for the companies that have an interest in achieving innovation outcomes and higher benefits (Cohen & Levinthal, 1990). A company's ACAP performs as the enabler that permits turning knowledge into new products, services, or processes to support innovation and, therefore, the firm's ability to restrict competitive forces (Leal-Rodríguez et al., 2014; Newey & Zahra, 2009).

According to Damanpour and Gopalakrishnan (2001), innovation is nowadays a crucial element when attempting to obtain and sustain competitive advantages, being product/service innovation a key component of firm's value creation and value appropriation processes. These authors argue that innovative firms tend to be more adaptable to changes, are more flexible, and are more able to exploit opportunities than their competitors. Firms that foster an innovative approach can deal better with the volatility and high dynamism of their environment, and are thus able to achieve and sustain long-term competitive advantages. In this vein, following the strategy of proactively embracing innovation contributes to differentiating the firm from its competitors, hence improving its business performance and market value (García-Zamora et al., 2013; Jansen et al., 2006).

This study posits that firms that want to stay in the market place have to consider both internal and external customers. To do so, firms try to provide the marketplace with a range of products or services that give value to these stakeholders. Therefore, superior performance is not an end in itself, but a result from providing superior value to stakeholders (Slater, 1997). By analyzing their customers (internal and external), firms should be able to improve their outcomes.

The literature demonstrates the possibility of viewing value both from the customer's perspective and from the firm's perspective. Some authors focus on perceived value (the customer's perspective), while others focus on value creation and appropriation (the firm's perspective) (Martelo-Landroguez et al., 2013). This study refers to value as the firm's outcomes in relation to their stakeholders (i.e., the firm's perspective).

However, value creation alone is insufficient to succeed in the marketplace. A firm's ability to restrict competitive forces to enable the appropriation of some of that value that the firm creates in the form of profit is also necessary (Mizik & Jacobson, 2003). Thus, value appropriation involves the development of a set of capabilities to extract benefits that stem from value creation. In other words, value appropriation focuses on the appropriation of market rents that the possession of specific differential resources or capabilities generates (Mocciaro & Battista, 2005). Although most authors focus their attention on the barriers to imitation of competitors, firms must focus on the retention of value in the organization (Bowman & Ambrosini, 2000).

The key idea is to know if firms are able to capture the value that they create for their internal and external customers. Firms that fail to pay enough attention to value

appropriation are unlikely to achieve competitive advantages and capture the benefits of their innovations (Mizik & Jacobson, 2003). Mocciaro and Battista (2005) posit that a period must exist in which the firm may pursue value appropriation to seize the fruits of the firm's innovations through an increase in the efficiency of the firm's resource allocation.

Value appropriation focuses on restricting competitive forces and extracting benefits from the marketplace (Han et al., 1998). According to Bowman and Ambrosini (2000), idiosyncratic ways of doing things allow firms to offer more value to their stakeholders, and could help firms to achieve higher benefits.

H1. Absorptive capacity has a positive relation with value.

4.2.2. KM and value: the multiple mediating roles of the knowledge stock, and knowledge application

Scholars broadly discuss the relationship between KM and the value for the internal and external customer (Despres & Chauvel, 1999; Gebert et al., 2003; Kaplan & Norton, 2004; Rezgui, 2007). In addition, Vorakulpipat and Rezgui (2008) suggest that a description of knowledge as a source of value creation is possible.

In terms of organizational processes, Gebert et al. (2003) suggest that KM processes have inherent value-creation capabilities. In this context, Vorakulpipat and Rezgui (2008) define KM as a set of processes that allow firms to use what they know to create value

for the customers, and then create new knowledge from the value-creation process. In the case of KM, the reference is to the internal aspect of the creation of value. Firms carry out a number of internal processes aiming at creating and capturing value from the market. Therefore, these processes are critical to organizational success (Chou, 2005; Van den Hooff & Huysman, 2009). Without them, companies may not take advantage of the knowledge they possess (Ipe, 2003).

Drawing on Cohen and Levinthal (1990), organization ACAP is not only the organization' acquisition of information and knowledge but also the organization's ability to exploit this acquisition. Acquisition capacities and exploitation capacities are therefore path dependent. An organization can exploit new knowledge only if this organization can acquire and stock this knowledge. These capacities become stronger through two complementary KM processes, namely KS and KA.

KS, or knowledge base, stems from the concept of organizational learning, where the firm is a learning system resulting in the accumulation of knowledge. Organizational members possess, acquire, and accumulate knowledge through experimentation, the observation of stimuli, and the interpretation of the results. Ravasi and Verona (2001) point out that a knowledge base always exists in a firm, either as individual or collective knowledge, in firm routines, databases, knowledge bases, intranet, etc. In a sense, some authors assimilate KS to the organizational memory concept, whose definition can be the persistent representation of knowledge and information from the firm's history (Chou et al., 2007).

According to the knowledge-based view (KBV), a firm's existing knowledge base sets up its scope and ability to understand and apply new knowledge to decision-making, problem-solving, or innovation (Ahuja & Katila, 2001). Knowledge breadth and depth are two distinct dimensions of the KS that reveal both the structure and content of the knowledge a firm holds. Knowledge breadth refers to the extent to which the firm's knowledge repository contains distinct and multiple domains. Knowledge depth concerns the knowledge's level of sophistication and complexity in key fields (Zhou & Li, 2012).

To perform better, firms must fulfill two requirements: a broad knowledge base, and deep knowledge base (Leal-Rodriguez et al., 2013). On the one hand, a firm with broad knowledge accumulates expertise across a variety of disciplines and heterogeneous market domains through its extensive knowledge exploration (Prabhu et al., 2005). In addition to knowledge sharing, a broad KS provides the sharing process through which the firm can connect and integrate its broad knowledge. On the other hand, a firm with a knowledge depth is likely to benefit from market and customer knowledge acquisition. This firm with a deep knowledge base, and know-how about existing technologies and markets can develop core competencies and firm-absorbing value.

Prior research suggests that in the search process that underlies co-creation innovations, maintaining a balance between depth and breadth is critical to successful innovation (Katila & Ahuja, 2002; Prajogo & Ahmed, 2006). The size and structure of an organization's KS can determine how well this organization manages knowledge resources and creates capacities (Yayavaram & Ahuja, 2008). However, without KA,

other processes of KM make little sense because firms generate, acquire, store, and share knowledge to apply that knowledge, and make the company more competitive.

Little research exists on KA. According to Gold et al. (2001), authors assume KA, because they do not make KA explicit. For example, Nonaka and Takeuchi (1995) discuss a firm's ability to create knowledge, and they seem to assume that once the firm creates knowledge, the effective application of knowledge takes place.

The basis of the firm's competitive advantage does not reside in knowledge itself but in its application (Alavi & Leidner, 2001). Following Martelo-Landroguez et al. (2011), if an organization wants to capitalize on its knowledge, that organization must understand how the creation, sharing, and application of knowledge occur.

According to Grant (1996), the critical source of competitive advantage is the integration of knowledge and not knowledge itself. The processes through which companies integrate knowledge are fundamental to their ability to create and sustain competitive advantage. In general, a need exists to use organizational knowledge in a company's processes, products, and services. If a company cannot easily find the adequate knowledge in the right way, this company struggles to maintain its competitive advantage (Bhatt, 2001).

One of the more common ways of KA is to adopt the best practices of a company leader, to find the relevant knowledge, and apply this knowledge (O'Dell & Grayson, 1998). KA implies the use of knowledge that the ACAP phase generates, and that the stock and transfer phase preserves and shares. Therefore, KA involves the internalization of knowledge in the company.

From the KA process, the organization can receive feedback if the firm needs that knowledge, or if the circumstances of the environment change in such a way that the ACAP process becomes obsolete and needs renovating.

Thus, this study argues that KS and KA processes have positive mediation effects in the ACAP-Value relationship:

H2. Knowledge stock positively mediates the relation between absorptive capacity and value.

H3. Knowledge application positively mediates the relation between absorptive capacity and value.

H4. Knowledge stock and knowledge application sequentially mediate the relationship between absorptive capacity and value.

4.3. METHOD

4.3.1. Data collection and sample

The Spanish banking industry provides an appropriate context to test empirically the above research hypotheses because banking activities demonstrate learning capabilities.

Two main reasons prompt the choice of the Spanish banking domain as a target for study: First, the necessity for intimacy between service providers (managers in the branch office) and customers in their commercial relationships. Banking is a trust-based service, and

these relationships tend to endure for long periods. Second, the banking service is an ideal platform for learning because two or more individuals often work together with different resources and complementary capacities. These issues are learning facilitator factors (Fenwick, 2007).

Only 15 banks meet the study's requirements (i.e., banks serving the general public). Data collection follows a snowball sampling method with key respondent methodology, in accordance with the suggestions of an expert panel consisting of 15 eminent academics and 10 general bank managers. The unit of analysis is branch-office managers from the 15 banks operating in Spain in 2013.Surveying took place over a period of two months, from September 2013 to November 2013. In total, 307 branch-office managers received telephone and mailing invitations to participate in the study, a process that yields a total of 153 questionnaires. Two of these questionnaires were unsatisfactory and therefore do not appear in the final sample. Analysis therefore relies on the data from 151 valid questionnaires (49.18% response rate).

4.3.2. Measures

The foundations of the survey design are in the theoretical review in Section 2. This study uses and adapts scales from previous studies in which the items and responses appear on a seven-point Likert scale ranging from 1: "I completely disagree" to 7: "I completely agree".

To assess ACAP, this study adapts the scale (eight items to measure PACAP and seven items to measure RACAP) from the Jansen et al.'s (2005) study. Building on the previous works of Chou et al. (2007), four items to measure organizational memory make up the scale for KS. For the KA variable, this study relies on the ten-item scale of Gold et al. (2001). Finally, because of the conceptual difficulty of the variable value and that a specific scale to measure this variable does not exist, this study adapts a scale that measures effectiveness. Effectiveness and value are constructs that closely relate in the literature (Garriga, 2014; Gong, 2011). Thus, considering effectiveness as a proxy of the value variable is possible. For this reason, the scale to measure value comprises twelve reflective items from Quinn and Rohrbaugh (1983). Research shows that perceived measures of effectiveness can be a reasonable substitute for objective measures of performance and have a significant correlation with them (e.g., Geringer & Hebert, 1989; Venkatraman & Ramanujam, 1987).

4.3.3. Data analysis

To test the research model and hypotheses, this study relies on the use of the partial least squares (PLS) technique, a variance-based structural equation modeling (SEM) method. PLS is an appropriate technique for this study due to the following (Roldán & Sánchez-Franco, 2012): (1) the sample (n = 151) is small; (2) the focus of the study is the prediction of the dependent variables; (3) the research model is considerably complex according to the type of relationships in the hypotheses; and (4) this study uses latent variables' scores

in the following analysis of predictive relevance. This study uses SmartPLS 3.0 software (Ringle et al., 2014) for the PLS analysis.

4.4. RESULTS

Two phases comprise the analysis and interpretation in a PLS model: (1) the assessment of the reliability and validity of the measurement model, and (2) the evaluation of the structural model.

4.4.1. Measurement model

The results show that the measurement model meets all common requirements. First, individual items are reliable because all standardized loadings are greater than 0.7 (Table 1). Second, because all composite reliabilities and Cronbach's alphas are greater than 0.7 (Table 2), the model satisfies the prerequisite of construct reliability. In addition, the scores for average variance extracted (AVE) surpass the threshold of 0.5 (Table 2). Consequently, these latent variables achieve convergent validity.

Finally, all variables attain discriminant validity. Confirmation of this validity comes from both the comparison of the square root of AVE versus correlations (Table 2), and the cross-loadings analysis (Table 1) (Roldán & Sánchez-Franco, 2012).

Table 1. Loadings and cross-loadings for the measurement model

	ACAP	Value	KA	KS
PACAP	**0,96**	0,68	0,76	0,59
RACAP	**0,96**	0,73	0,78	0,61
VAL1	0,62	**0,82**	0,60	0,43
VAL2	0,65	**0,87**	0,65	0,48
VAL3	0,63	**0,84**	0,58	0,40
VAL4	0,59	**0,80**	0,59	0,37
VAL5	0,65	**0,87**	0,67	0,50
VAL6	0,60	**0,86**	0,60	0,38
VAL7	0,58	**0,83**	0,61	0,42
VAL8	0,53	**0,80**	0,58	0,38
VAL9	0,56	**0,81**	0,61	0,47
VAL10	0,65	**0,84**	0,66	0,55
VAL11	0,54	**0,71**	0,58	0,46
VAL12	0,65	**0,84**	0,63	0,51
APK1	0,65	0,68	**0,81**	0,58
APK2	0,72	0,66	**0,91**	0,63
APK3	0,76	0,73	**0,93**	0,61
APK4	0,66	0,64	**0,86**	0,53
APK5	0,67	0,64	**0,88**	0,54
APK6	0,71	0,66	**0,89**	0,56
APK7	0,73	0,64	**0,89**	0,62
APK8	0,61	0,49	**0,78**	0,50
APK9	0,76	0,64	**0,88**	0,58
APK10	0,74	0,71	**0,90**	0,61
STK1	0,70	0,62	0,73	**0,86**
STK2	0,35	0,30	0,38	**0,79**
STK3	0,54	0,44	0,55	**0,89**
STK4	0,46	0,42	0,51	**0,91**

Table 2. Construct reliability, convergent and discriminant validity coefficients

	Mean	SD	CR	CA	AVE	ACAP	Value	KA	KS
ACAP	4.45	1.12	0.96	0.91	0.92	**0.96**			
Value	5.28	1.26	0.96	0.96	0.68	0.73	**0.82**		
KA	5.11	1.08	0.97	0.96	0.76	0.80	0.74	**0.87**	
KS	4.47	1.02	0.92	0.89	0.75	0.63	0.54	0.66	**0.86**

Notes: Mean = the average score for all of the items included in this measure; S.D. = standard deviation; CA = Cronbach's alpha; CR = composite reliability; AVE = average variance extracted. Diagonal entries

are the square root of the average variance extracted. Off-diagonal elements are correlations among constructs

4.4.2. Structural model

As Henseler et al. (2009) comment, the use of bootstrapping (5000 resamples) produces standard errors and t-statistics to assess the statistical significance of the path coefficients. Concurrently, calculation of the bootstrapping confidence intervals of standardized regression coefficients forms part of the analysis. All the direct effects in Figure 1 are significant, with the exception of b1 (KS on value). The percentile bootstraps at a 95% confidence interval and bias-corrected confidence interval also have this outcome (Table 3). These results support H1.

In addition, the results confirm that the structural model has satisfactory predictive relevance for the value variable (Q2 = 0.40). Tests on the mediation hypotheses (H2, H3, and H4) use an application of the analytical approach that Hayes et al. (2011) describe.

Table 3. Construct Effects on endogenous variables

Effects on endogenous variables	Direct effect	t-value (bootstrap)	Confidence intervals (percentile 95%)	Confidence intervals (bias corrected)	Explained variance
ACAP -> Value (c')	0.39***	3.95	(0.22:0.53) sig	(0.22:0.53) sig	30.55%
ACAP -> KA (a2)	0.63***	10.72	(0.53:0.73) sig	(0.53:0.72) sig	51.00%
ACAP ->KS (a1)	0.63***	12.31	(0.54:0.71) sig	(0.54:0.71) sig	39.20%
KA -> Value (b2)	0.41***	3.92	(0.24:0.60) sig	(0.24:0.59) sig	28.85%
KS -> Value (b1)	0.03ns	0.44	(-0.07:0.12) nsig	(-0.07:0.11) nsig	1.52%
KS -> KA (a3)	0.26***	3.98	(0.16:0.38) sig	(0.15:0.37) sig	17.70%

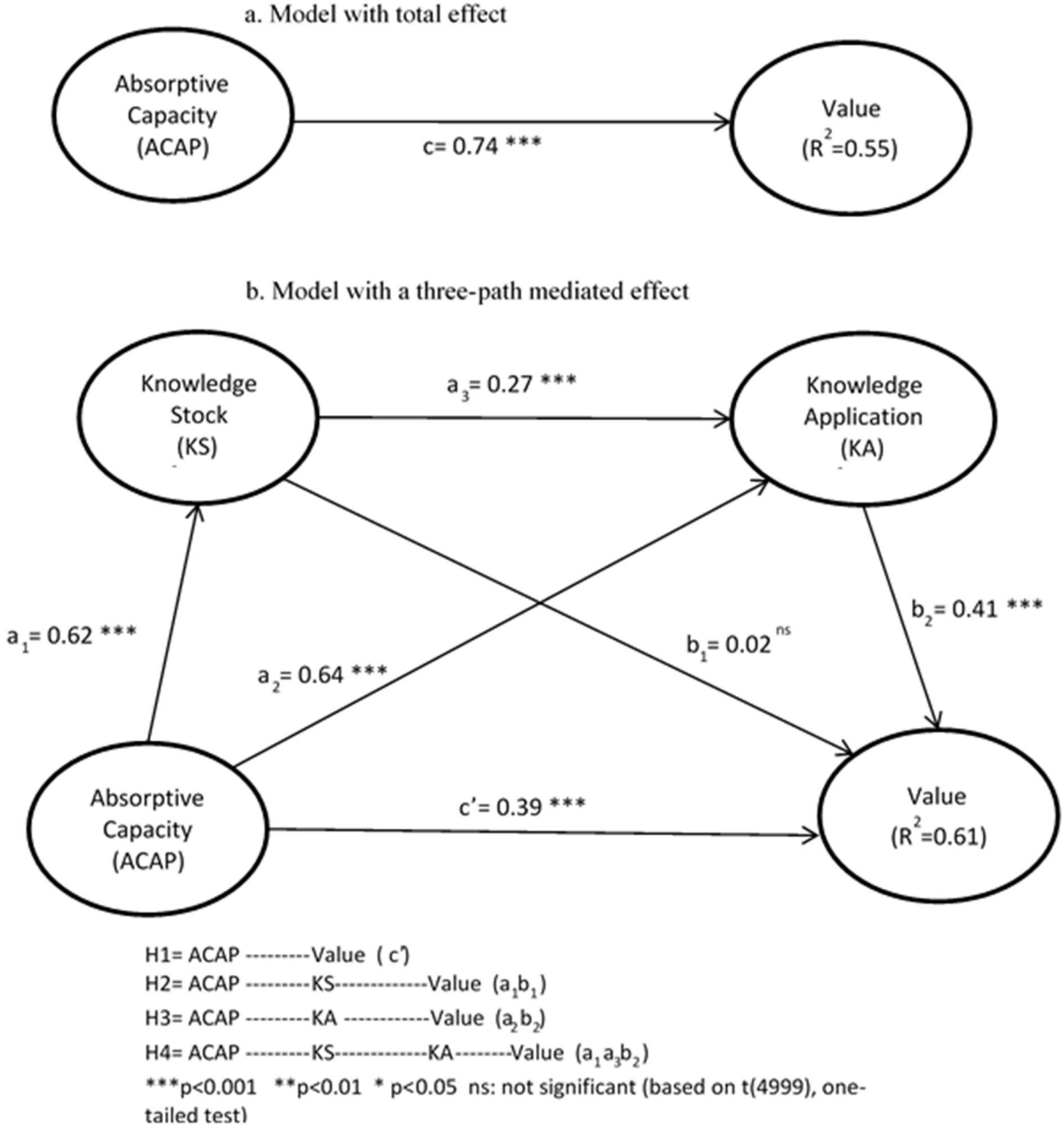
***p<0.001 **p<0.01 * p<0.05 nsig: not significant (based on t(4999), one-tailed test). sig: significant direct effect
Value: Q2: 0.402

Figure 1a shows the total effect (c) of ACAP on value. Figure 1bindicates the total effect of ACAP on value as the sum of the direct (c′) and indirect effects (a1b1 + a2b2+a1a3b2). The estimation of the latter uses the product of the path coefficients for each of the paths in the mediational chain.

The use of bootstrapping allows for the testing of the mediation hypotheses (Preacher & Hayes, 2008). This study's 5000 resamples generate 95% confidence intervals (percentile) and bias-corrected confidence intervals for the mediators.

As Figure 1a and Table 4 show, ACAP has a significant total effect on value(c = 0.74; t = 16.46). When adding the mediators (Figure 1b), ACAP decreases its influence, but maintains a significant direct effect on value (H1: c′ = 0.39; t = 3.95). Therefore, this result supports H1.Theresults also show a partial mediation between ACAP and value because the indirect effects of H3 and H4 are significant. However, they fail to support H2 (Table 4).

Figure 1. Structural model.



H1= ACAP ---------Value (c')
H2= ACAP ---------KS----------Value (a_1b_1)
H3= ACAP ---------KA ----------Value (a_2b_2)
H4= ACAP ---------KS----------KA--------Value ($a_1a_3b_2$)
***p<0.001 **p<0.01 * p<0.05 ns: not significant (based on t(4999), one-tailed test)

Table 4. Summary of mediating effect tests

	Coefficient	t-value
Total effect of ACAP on VAL **(c)**	0.74***	16.46
Direct effect of ACAP on VAL**H1(c')**	0.39***	3.95

Indirect effects of ACAP on VAL	Point estimate	Percentile 95% confidence interval	Percentile 95% confidence interval bias corrected
H2=a_1b_1	0.01	(-0.036:0.08)ns	(-0.038:0.08)ns
H3=a_2b_2	0.26	(0.13:0.44)sig	(0.13:0.43)sig
H4=$a_1a_3b_2$	0.07	(0.02:0.16)sig	(0.02:0.15)sig
Total	0.35	(0.11:0.68)sig	(0.11:0.67)sig

***p<0.001 (based on t(4999), one-tailed test).
sig: significant effect
ns: not significant

4.5. DISCUSSION

Through an empirical study of 151 branch offices in the Spanish banking industry, this study examines the relationship between ACAP and value for the internal and external customer. Specifically, the analysis focuses on the relationship between ACAP and value with the mediating effects of KS, KA, and the sequential effect of KS and KA.

The study's first contribution is to deepen into the relationships between some KM processes and value for the internal and external customer but from the perspective of the value outcome that can derive from delivering superior value resulting from managing knowledge (i.e., considering the value as appropriation or capture). The approach herein is to place ACAP at the beginning of the process, as a main antecedent of value, while KS and KA play mediating roles between ACAP and value. The results show that KA, to

a greater extent, and KS, to a lesser extent, partially mediate the effect of the knowledge absorption capacities on value.

Banks traditionally center their efforts on improving ACAP levels in order to achieve the appropriation of the value. The results of the model with only the total effect (Figure 1a) indicate that the greater the ACAP level, the greater the value these firms achieve (R2 = 0.55). The ACAP, by itself, gives rise to an increase of the value, as the study shows in the value of c'=0.39, which is positive and significant. This result supports H1, and corroborates the idea that ACAP continues to be a fundamental target for financial firms.

As a second contribution, this study finds a way for managers to achieve better outcomes for banks through the capture and creation of value from the joint development of the absorption systems, storage, and application of knowledge. The structural model shows that the positive effect that ACAP has in the generation of KS does not lead to a significant effect in the increase of value (H2=a1b1= 0.01 ns). However, to the extent that KS causes greater KA, a multiple mediation effect takes place through these two variables—KS and KA (H4 = a1a3b2 = 0.07). Finally, the most important indirect effect that this study detects is that which occurs via KA. Thus, when ACAP gives rise to KA, this KA generates a significant increase in value (H3 = a2b2 = 0.26).

In summary, the fact that a storing of the absorbed knowledge occurs and this knowledge increases the firm's knowledge base is not, by itself, a value increase (Alavi & Leidner, 2001; Cohen & Levinthal, 1990). H2 reflects this effect, showing that if firms store and do not apply the knowledge, then there isn´t a superior value appropriation of the value created (Jiménez-Jiménez et al., 2011).

4.6. CONCLUSIONS AND LIMITATIONS

This study focuses on the effect of the critical processes of KM in value. This study considers value as the firm's outcomes in relation to their internal and external customers. Value is a topic of increasing interest for firms, because all the companies wish to find out ways to increase the creation and appropriation of value.

The study shows that ACAP is an antecedent of value, and KS and KA play a mediating role with different results. The results support that ACAP affects value directly and indirectly through KA, and through the multiple effect of KS and KA, but not through the mediating role of KS. Therefore, firms have to apply the knowledge they absorb to achieve a superior value. If firms store but do not apply the knowledge, they cannot achieve a superior value.

This topic is very interesting and useful for managers. They must understand that information systems and business-intelligence systems must capture information and knowledge for its application within the firms, and they should consider knowledge in decision-making processes.

This study has some limitations. First, results offer only a snapshot of current processes instead of measures of the same process over time. Second, although drawing on relevant, useable scales from the literature guarantees that the constructs' definition is as precise as possible, the constructs can credibly act only as proxies for an underlying latent phenomenon, which is itself only partially measurable. Third, the model in this study is

general and fails to capture the possible moderating effects of environmental turbulence and uncertainty. Prior research shows that the effect of cognitive factors on individual, group, and organizational performance can vary substantially with environmental conditions. Fourth, the cross-sectional (rather than longitudinal) design of the study might misrepresent variables that refer to lengthy processes, the effects of which only become apparent over long periods. Finally, this study takes place in a specific geographical context (Spain) and economic sector (the banking industry); for this reason, researchers must be careful about generalizing these results and conclusions to other scenarios or different contexts.

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CAPÍTULO 5

"CRITICAL PROCESSES OF KNOWLEDGE MANAGEMENT: AN APPROACH TOWARD THE CREATION OF CUSTOMER VALUE"

CAPÍTULO 5: CRITICAL PROCESSES OF KNOWLEDGE MANAGEMENT: AN APPROACH TOWARD THE CREATION OF CUSTOMER VALUE

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ABSTRACT

The aim of this article is to contribute to the literature by identifying and analyzing possible combinations between critical knowledge management processes (absorptive capacity, knowledge transfer and knowledge application), which will result in the creation of superior customer value. The main research question this work addresses is: given that customers are demanding each day a greater value, how can organizations create more value to customers from their knowledge management processes and the combination of them? We propose that the combination of the three knowledge management processes

builds a dynamic or higher-order capability that results in the creation of superior value for customers.

KEYWORDS: Dynamic capability, Knowledge Management, Knowledge Management processes, Customer Value, Microfoundations of dynamic capabilities

JEL Classification: M10, M15, M19, M29

RESUMEN: El objetivo de este artículo es contribuir a la literatura a través de la identificación y análisis de posibles combinaciones entre procesos críticos de gestión del conocimiento (capacidad de absorción, transferencia de conocimiento y aplicación de conocimiento), que tendrá como resultado la creación de un mayor valor para el cliente. Este trabajo tiene como objetivo responder a la pregunta: dado que los clientes cada día demandan un mayor valor, ¿cómo pueden las organizaciones crear mayor valor sobre la base de sus procesos de gestión del conocimiento y su combinación? Proponemos que la combinación de los tres procesos de gestión del conocimiento constituye una capacidad dinámica o capacidad de orden superior que da lugar a la creación de un mayor valor para el cliente.

PALABRAS CLAVE: Capacidades dinámicas, gestión del conocimiento, procesos de gestión del conocimiento, valor para el cliente, microfundamentos de las capacidades dinámicas

Clasificación JEL: M10, M15, M19, M29

5.1. INTRODUCTION

In recent years of high turbulence of the environment, firms and organizations in general must pay special attention to those strategies or management processes with a greater likelihood of ensuring their success and of helping them achieve sustainable competitive advantages over time. Customer focus and the value that organizations are able to offer him or her constitute key elements to achieve such sustainable advantages.

Thus, the aim of this study is to develop a model that brings a better understanding on how a company can offer greater value to the customers, through its knowledge management (KM) processes. In particular, the research question this work aims to address is: given that customers are demanding each day a greater value, how can organizations create more value to customers from their KM processes and the combination of them?

In this line, KM becomes a key management capacity in order to create customer value. The importance of this capacity roots on the consideration of knowledge as a key strategic resource (Grant, 1996; Van den Hooff, and Huysman, 2009). Thus, if firms want to take advantage of the knowledge they possess, they have to know how knowledge is created, shared and used within the company (Ipe, 2003).

The existing literature suggests that enterprises that apply KM processes are especially looking to deliver superior value to the customers. Nevertheless, the key is not its static analysis at any point in time; the recombination of the processes should be recurrent and sustainable. According to Sirmon, Hitt, and Ireland (2007), having highly valuable or rare

resources and capabilities is not sufficient to obtain competitive advantages or to create value; companies must also be able to manage them effectively. Therefore, the creation of value can also occur by recombining existing resources and capacities (Morrow, Sirmon, Hitt, and Holcomb, 2007). Organizational capacities have to be able to be reconfigured to allow the company to create value over time.

This research explores customer value creation through the organizational capacity of KM, and proposes that recombination processes constitute themselves a higher-order capacity which contributes to increase customer value. On this basis, and relying on the existing literature on the subject, this study intends to establish how companies can develop these higher-order or dynamic capabilities (DC), thus being able to offer a superior customer value. For this reason, we analyze how absorptive capacity (ACAP), knowledge transfer (KT) and knowledge application (KA) combine and relate to each other; establishing a knowledge cycle that will constitute a dynamic capability, and hence contribute to provide customers with superior value.

Section two presents the theoretical framework. Details of the proposed model are shown in section 3 and the theoretical contributions and managerial implications are discussed in section 4, which is followed by our general conclusions in section 5.

5.2. THEORETICAL BACKGROUND

According to Martelo-Landroguez, Barroso, and Cepeda (2011), understanding how organizations are able to generate and maintain a competitive advantage becomes

something fundamental in the field of strategic management (Zott, 2003). According to the resource-based view (RBV), the differences in performance between companies are due to their specific sets of resources and capabilities. Therefore, such resources and capabilities are understood as the source of competitive advantage (Helfat and Peteraf, 2003). The RBV assumes that resources and capabilities are distributed heterogeneously among companies and that such heterogeneity can be maintained over time (Wang and Ahmed, 2007; Ambrosini and Bowman, 2009; McKelvie and Davidsson, 2009).

At the current period of widespread crisis, characterized by a significant shortage of resources in all sectors, organizations need more than ever to be able to distribute their available resources among the distinct alternatives, to try to adapt in the best way and as quickly as possible to the turbulence of the environment (Fowler, King, Marsh, and Victor, 2000; Prahalad and Ramaswamy, 2004). Therefore, organizations must develop DC in order to evolve, advance, grow, adapt, and, ultimately, survive. By means of such DC development, the company will be prepared and able to sit some firm foundations that support its strategy (Helfat and Martin, 2015).

The literature proposes numerous definitions of DC. DC is a concept that has been reached through a terminological evolution of different authors over time. Teece, Pisano, and Shuen (1997) were the first to coin this concept and defined it as the ability of the company to integrate, build, and reconfigure internal and external competencies to manage rapidly-changing environments. Cepeda and Vera (2007) and Zahra, Sapienza, and Davidsson (2006) refer to DC as the processes to reconfigure a firm's resources and

operational routines in the manner envisioned and deemed appropriate by its principal decision makers.

As an extension of the RBV and as a forerunner of the DC approach, we found in the literature the knowledge-based view (KBV). The authors supporting the KBV (Nonaka, 1994; Grant, 1996) essentially consider that the main aim of the company is to create and apply knowledge. According to this approach, firms are knowledge stores. Hence the importance of accessing this knowledge, creating within the company an enabling environment to knowledge acquisition, and considering knowledge as an asset (Davenport, De Long, and Beers, 1998).

The problem inherent to the RBV is that it fails to adequately explain how and why many companies reach competitive advantages in situations of fast and unpredictable change. In such markets, where the competitive landscape is changing, DC become a source of sustainable competitive advantages. The management of knowledge resources, in particular, is especially critical in such markets (Eisenhardt and Martin, 2000). While the RBV emphasizes the collection of resources (Barney, 1991), the DC approach focuses on the renewal of these resources through their reconfiguration into new functional skills (Teece et al., 1997; Eisenhardt and Martin, 2000).

5.2.1. Microfoundations of dynamic capabilities

The microfoundations of DC (Teece, 2007) are defined as a set of tasks that the company must address in order to develop DC. Such tasks are called sensing, seizing, and

reconfiguring. The DC approach suggests that to identify new opportunities (i.e., sensing); to effectively organize them (i.e., seizing); and to adopt them (i.e., reconfiguring), is more relevant than strategy itself; strategy being understood as the behavior to ward off competitors, raise entry barriers, and exclude potential new rivals (Teece, 2007; Helfat and Peteraf, 2015). In this sense, other authors (Helfat and Peteraf, 2009; Teece, 2009) suggest that companies need to align their resources with the market's needs through the perception of opportunities or threats (sensing), the valuation of opportunities and the management of the threats (seizing), and the reconfiguration of the resources (reconfiguring).

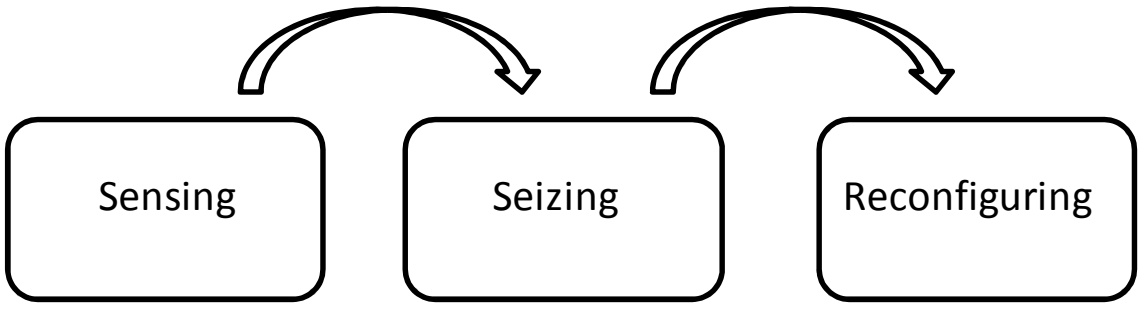
First, companies need to focus on the activities of perception (sensing), to find out new opportunities. To do this, managers must scan, learn and interpret all the existing information (Cohen and Levinthal, 1990). These tasks will enable the discovery of latent opportunities and will generate new opportunities. Firms will have to carry out these activities intentionally and systematically, not leaving matters to chance. Now more than ever, managers need to find the way to better understand all the information available. Therefore, they will have to filter and identify the relevant information upon which to focus their attention (Ocasio, 1997).

When a new opportunity has been detected, the next step will be to assess the opportunity, which is seizing. To do this, it is necessary to determine the business model, understand resource needs and make decisions to invest in technology or other resources required, while allowing others to make the appropriate changes. Due to the fact that numerous functional areas are involved, it is necessary to achieve an important coordination of

activities that affect these various functional areas, and also the associated investments that should be made simultaneously and not sequentially, especially if companies are shortening times of commercialization of new products or services (Teece, 2007). After assessing the opportunity, the reconfiguration of resources (reconfiguring) becomes necessary. Reconfiguring involves the reallocation of resources so that the new combination increases the value of the company. This reconfiguration gives the company the ability to adapt to changes in the environment, to dispose of obsolete routines and to allow increased and sustainable results.

Figure 1 graphically represents the sequence of activities or tasks that must be carried out within the organization.

Figure 1. Sequence of the microfoundations of dynamic capabilities



5.2.2. Knowledge management: critical processes

KM has been a widely examined topic in the management literature for many years. For a long time, companies wanted to "know what they know" (i.e., to bring to conscious level what the company knows how to do, but which up to a certain time had never

stopped to analyze). Additionally, they intended to go beyond wondering how they are able to make the best use of the knowledge they possess (Macintosh, 1997).

Knowledge is considered the most important asset that organizations have (Drucker, 1985) and the most significant economic resource. Therefore, important efforts are being made in order to be able to determine how to acquire it, represent it, retain it and manage it. The key is to know how to combine knowledge in order to ensure that the firm achieves sustainable competitive advantages (González-Loureiro, Vila, and Schiuma, 2015). Alavi and Leidner (2001) indicate that companies' difficulties in maintaining, locating and applying knowledge has led them to develop systematic procedures to manage it.

Recent works (Martelo-Landroguez et al., 2011) highlight the popularity of KM, which has grown both at the academic level and among professionals. One of the most addressed aspects in KM literature is the processes that comprise KM. Following an exhaustive review of the existing literature, this study considers the following KM processes to be critical:

Absorptive capacity: this involves developing new knowledge or replacing the existing one (Pentland, 1995). It includes performances of searching for new information and knowledge, both inside and outside the organization, leading in turn to new knowledge generation (Chen and Edgington, 2005; Cepeda, Cegarra, and Jimenez, 2012).

ACAP was initially defined as the firm's ability to recognize the value of new external knowledge, assimilating and applying it to commercial purposes (Cohen and Levinthal, 1990). Zahra and George (2002) later extended the ACAP concept, broadly defining it as

a set of organizational routines and processes through which firms acquire, assimilate, transform and exploit knowledge in order to shape a dynamic organizational capability.

Several studies propose that the ability to exploit effectively external knowledge is a critical factor for the companies that have an interest in achieving innovation outcomes and higher benefits (Cohen and Levinthal, 1990). A company's ACAP performs as the enabler that permits turning knowledge into new products, services, or processes to support innovation and, therefore, the firm's ability to restrict competitive forces (Newey and Zahra, 2009; Leal-Rodríguez, Roldán, Ariza-Montes, and Leal-Millán, 2014).

Knowledge transfer: this concept refers to the knowledge exchange that occurs between individuals or groups of individuals, from individuals to explicit sources, and from a group to the organization (Alavi and Leidner, 2001). However, knowledge transfer has many motivational and perceptive obstacles, or "stickiness" (Szulanski, 1996). For instance, employees may resist receiving new knowledge from other groups, departments or sections because it is not related to their prior knowledge. To assist firms overcome these obstacles, researchers in KM have investigated the numerous facilitators of knowledge transfer (Chang, Gong, and Peng, 2012).

Among these, social capital has been taking much consideration (Kang and Kim, 2013; Kang and Hau, 2014). Knowledge transfer, conceptualized as reciprocal exchanges of organizational knowledge between a source and a recipient unit, includes two agents or components: a source and a recipient. Social capital theory suggests that social relationships can stimulate and facilitate knowledge activities of both the source and the recipient. From a knowledge source's perspective, good social relationships among

employees can increase trust, thus facilitating knowledge transfer. From the recipient's viewpoint, good social relationships with coworkers facilitate the access to different and varied knowledge. However, recipients who lack prior associated knowledge may have trouble learning the source's knowledge and fight accepting it. "This lack of prior knowledge and resistance to learning new knowledge at the individual level will lead to a low absorptive capacity" (Kang and Hau, 2014, p. 759).

Knowledge application: this is a particularly relevant process, since the basis of organizational competitive advantages does not reside in knowledge itself, but in its application (Alavi and Leidner, 2001).

KA is a complex process because it is a loop process. On the one hand, for KA to take place, a prior phase of ACAP is required and transfer mechanisms are essential for storing and sharing knowledge. On the other hand, when the individuals apply their knowledge, through a process of feedback, they are able to check the results of that applied knowledge and the deviations from the objectives of such application. As a consequence, this process will generate new knowledge that may again be stored and transferred. Therefore, KA involves the internalization of knowledge in the company.

Following Martelo-Landroguez et al. (2011), if an organization wants to capitalize on the knowledge that it possesses, that organization must understand how knowledge is created, shared, and applied (Ipe, 2003). These processes are fundamental and essential for the adequate and effective management of organizational knowledge. As these processes do

not constitute a linear sequence, all or only some of them could be involved (Alavi and Leidner, 2001).

5.2.3. Customer value

Any organization that seeks to remain on the market should in some way or another consider their customers and will therefore try to introduce into the market an offer of products or services that provide a certain customer value. According to some authors (Drucker, 1985; Porter, 1985; Slater and Narver, 1998), the value created for customers and the ability to manage it have been recognized for a long time as essential elements of the business strategy of companies.

To determine what the customer wants from a product and/or service also helps the company to make its value proposition (Martelo-Landroguez et al., 2011; Martelo-Landroguez and Cepeda, 2016). During the last decades, companies have been in a new complex competitive environment, in which increasingly more customers ask for consistent value creation (Sanchez, Iniesta, and Holbrook, 2009). This situation has resulted in a growing interest in creating and delivering greater customer value (Wang, Lo, Chi, and Yang, 2004; Smith and Colgate, 2007).

According to the KBV, knowledge is a critical input to value creation processes and KM refers to a firm's capability to use and combine various sources of knowledge that could transform tangible resources into value in the form of product or process innovations (Holsapple and Wu, 2008; Kiessling, Richey, Meng, and Dabic, 2009). Following

Damanpour and Gopalakrishnan (2001), innovation is also considered a critical element when attempting to reach and sustain competitive advantages, being product/service innovation a key component of firm's value creation and value appropriation processes. These authors argue that innovative firms tend to be more flexible and adaptable to changes, and hence, are more able to exploit opportunities than their competitors are. Firms that foster an innovative approach can deal better with the currently highly dynamic environment, and are thus able to achieve and sustain long-term competitive advantages. In this vein, proactively embracing innovation contributes to differentiating the firm from its competitors, contributing hence to improve its business performance and market value (Jansen, Van den Bosch, and Volberda, 2006; García-Zamora, González-Benito, and Muñoz-Gallego, 2013).

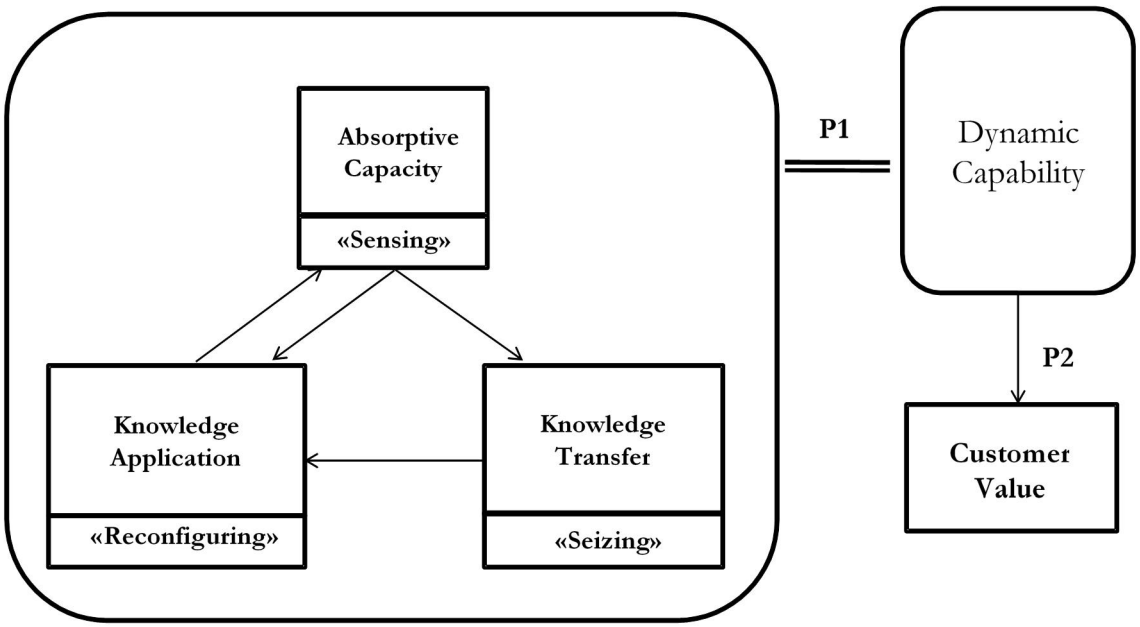
5.3. PROPOSED MODEL

In our proposed research model (figure 2), we intend to show how the combination of the proposed KM processes, considered critical, constitute a dynamic capability. We also show that this combination of processes conducts to creating customer value.

This model is based on the KBV as a precursor of the DC approach. KBV identifies knowledge as the most strategically important resource (Grant, 1996; Alavi and Leidner, 2001). From this approach, we pay attention to understanding the relationship between KM processes and organizational capabilities, the relevance of different processes that enable the creation, exchange and use of knowledge, and the interrelationship with the

microfoundations of DC. Likewise, we theoretically propose how these combined processes develop DC in the companies, as well as how these relationships generate superior customer value, and all this in order to achieve superior business performance (Decarolis and Deeds, 1999).

Figure 2. Proposed Model



5.3.1. Relationship between KM processes

Research on KM often refers to internal knowledge processes; however, ACAP focuses on the firm's use of external knowledge. In turbulent environments, companies tend to deeply rely on external knowledge (Droge, Calantone, and Harmancioglu, 2008). Given that the accumulation of knowledge is not only the result of internal development, but

also of the assimilation of external knowledge, the ACAP of a company is critical to its success (Martelo-Landroguez and Cegarra, 2013).

The first authors to use the concept of ACAP were Cohen and Levinthal (1990). Developing and maintaining ACAP becomes critical for the survival and success of a company in the long term, since such capacity can reinforce, complement or reorient the knowledge base of the company. However, it is necessary to know what to do with this newly acquired knowledge. Knowledge is acquired in order to apply it; therefore, it is essential that such knowledge reaches the whole organization (Ipe, 2003). The sharing and dissemination of knowledge through the process of knowledge transfer (KT) is crucial. Our proposed model (figure 2) represents the relationship between ACAP and KT. Once knowledge is absorbed, it may be transferred to the rest of the organization, contributing to developing into a dynamic capability.

KT essentially involves the act of making knowledge available to others within the organization (Ipe, 2003). To ensure that knowledge might be available, individuals and departments must be involved in the process of KT (De Vries, Van den Hooff, and De Ridder, 2006). KT is understood as an effective way of improving the knowledge that a company has on their competitors and the industry, and to acquire local knowledge (Gold, Malhotra, and Segars, 2001). In fact, KT is one of the most critical processes within the KM topic and is considered to be a key phase for its success. To remain competitive within the marketplace, companies should share their organizational knowledge and skills throughout the firm (Gold et al., 2001).

Organizational competitive advantage does not lie on knowledge itself, but on its application (Alavi and Leidner, 2001). Without the application or utilization of knowledge (KA), the previous processes have little purpose. Knowledge is generated or acquired and shared to be applied and to make the company more competitive. Our model also establishes this relationship between KT and KA. For instance, when a company hires a director of R&D for developing apps for mobile phones, the company is acquiring new knowledge. The manager will share his/her knowledge with all the team members in order to develop new innovative apps that work in the market. It is in this development that the previously acquired and shared knowledge is applied. Therefore, the KA is the ultimate goal of KM.

Following Martelo-Landroguez et al. (2011), if an organization wants to capitalize on its knowledge, that organization must understand how the generation, sharing, and application of knowledge occur. By virtue of KA, the organization can have feedback about if that knowledge is indeed needed, or if the circumstances of the environment have changed, meaning that the ACAP process has become obsolete and requires a renovation. This relationship between ACAP and KA is represented in the model.

KM processes, according to Alavi and Leidner (2001), do not necessarily follow a linear order. For example, after acquiring knowledge a company can directly apply it without previously transferring it to the rest of the organization. In our model, we represent the case of the relationship between ACAP and KA. After being absorbed, knowledge can be applied directly without having to be transferred to the rest of the organization. Once these processes and their interrelationships have been analyzed, and following our proposed

model (figure 2), we will focus on analyzing the microfoundations of DC. That is to say, tasks that companies must carry out in order for them to be able to develop DC; and how the proposed KM processes are related to these microfoundations.

5.3.2. Microfoundations of DC and KM processes

Both organizational processes and operational capabilities can lead to develop and deploy a dynamic capability in a company. KM –which covers organizational learning, knowledge sharing and integration– is a critical capacity for the development of DC. KM is particularly useful to perceive and assess opportunities, as well as to reconfigure the firm's resources and capabilities. This study focuses on three KM processes (ACAP, KT, and KA) that we consider critical regarding company results, and a key element of DC (Teece, 2007).

KM is able to perceive (sensing) technological opportunities in the market. As we have already indicated, sensing requires companies to be able to absorb all the information and knowledge that surrounds it, in order to reach its effective implementation and thus achieve superior organizational results. Therefore, in order to develop DC, companies must enhance their ACAP, this being understood as "the set of organizational routines and processes by which firms acquire, assimilate, transform, and exploit knowledge" (Leal-Rodríguez et al., 2014, p. 894). This process allows companies to identify these opportunities and threats when developing DC (Teece, 2007, 2009; Helfat and Peteraf, 2009, 2015).

Once a new opportunity is detected, the next step deals with its rating or weighting (seizing). KM also allows the assessment (seizing) of opportunities. To analyze and assess the opportunity or threat detected for each of the functional areas involved, the knowledge generated necessarily has to be transferred to everyone within the organization, or at least to all the functional areas involved. Thus, KT processes become key elements while correctly assessing (seizing) the opportunity or threat. If, for example, the marketing department of a company detects that a competitor is developing a new product or service that enhances and includes some relevant innovation with respect to itself, the department should transfer this pertinent knowledge to the rest of the organization. Thus, other departments such as finance, production, and logistics can acknowledge the threat and start to develop some modifications on their product/service to offset the competitor. Without KT, such a valuation (seizing) of the threat could not be carried out and, hence the development of DC would not be possible.

After assessing the opportunity, organizations have to make decisions (i.e., do we remain as we are? Or do we make decisions to change things?) A reconfiguration (reconfiguring) of resources and capabilities implies the reallocation of resources so that the new combination will increase the company's value. This reconfiguration enables managers to better adapt to the changes in the environment, discard obsolete routines, and to obtain improvements in the growth and sustainability of results (Karna, Richter, and Riesenkampff, 2015). These tasks of resources reconfiguration (reconfiguring) necessarily imply managerial decisions to be based on the received, and in its case, transferred knowledge, so that the KA process produces this reconfiguration or new

combination of resources and capacities, and a close relationship is established between this reconfiguration and KA process.

For an organization's base of resources and capabilities to be permanently updated and renewed as a result of these reconfiguration tasks, it is necessary to maintain a direct connection with the managers for them to receive from the environment all the changes and demands that they need. This way, every new configuration of resources and capabilities serves the organization as feedback to the cycle of renewal of resources and capabilities. Continuing with the example of the marketing department previously stated, once the knowledge of the threat is transferred to the different departments of the company, they will have to make decisions to be able to keep on competing with this market rival. They therefore need to apply this knowledge by means of decision making and by adopting a new reconfiguration of their resources so that they improve the firm's results.

Thus, according to our model (figure 2), three processes of KM are closely related to the microfoundations of DC.

Proposition 1: *The combination and interrelation between KM processes (absorptive capacity, knowledge transfer, and knowledge application) constitute a dynamic capability.*

This study raises that relations between KM processes generate a knowledge cycle in such a way that the more dynamism the cycle has and the more quickly the knowledge acquired

is processed, transferred and applied, the more quickly the company will develop effective DC, and hence, achieve superior business performance.

5.3.3. KM processes and customer value

Recent studies address how KM processes and customer value are related (Gebert, Geib, Kolbe, and Brenner, 2003; Rezgui, 2007). These authors understand that knowledge and KM processes are sources of value creation for the customer, or have the capacity to create it (Vorakulpipat and Rezgui, 2008). This study focuses on the inside of the organization to see how certain internal processes affect the creation of value for the customer.

From this point of view, KM processes are perceived as those processes that allow companies to use what they know to create customer value (Vorakulpipat and Rezgui, 2008). Identifying knowledge as a key resource for organizational success confirms the need for processes that enable individual and collective knowledge creation, transfer, and leverage (Ipe, 2003).

According to the KBV, a firm's existing knowledge base sets up its scope and ability to understand and apply new knowledge to decision-making, problem-solving, or innovation (Ahuja and Katila, 2001). Firms carry out a number of internal processes aiming at creating and capturing value from the market. Therefore, these processes are critical to organizational success (Chou, 2005; Van den Hooff and Huysman, 2009).

Without them, companies may not take advantage of the knowledge they possess (Ipe, 2003; Bettis, Ethiraj, Gambardella, Helfat, and Mitchell, 2016).

Technology and software companies, for instance will likely have online forums to resolve questions or technical problems for customers. These are internal processes that create new knowledge from the problems others have had and that is stored and available for those who may need it in the future. Knowledge is hence shared and transferred among the members of the forum, both between the company and its customers, and customers among themselves.

According to Grant (1996), the critical source of competitive advantage is the integration of knowledge and not knowledge itself. The processes through which companies integrate knowledge are fundamental to their ability to create and sustain competitive advantage. In general, using organizational knowledge in a company's processes, products, and services is necessary. If a company cannot easily find the adequate knowledge in the right way, this company struggles to maintain its competitive advantage (Bhatt, 2001).

Organizational members possess, acquire, and accumulate knowledge through experimentation, the observation of stimuli, and the interpretation of the results. Ravasi and Verona (2001) point out that a knowledge base always exists in a firm, either as individual or collective knowledge, in firm routines, databases, knowledge bases, intranet, etc.

Proposition 2: *KM processes are positively related with customer value.*

5.4. THEORETICAL CONTRIBUTIONS AND MANAGERIAL IMPLICATIONS

Our study contributes to the existing literature in different ways. First of all, we highlight the use in the study of the concept of DC. On this basis, we propose that companies are able to compete in the market not only by their ability to exploit their resources and existing capabilities, but also thanks to their ability to renew and develop their organizational capabilities (Teece et al., 1997). Secondly, the combination of KM processes (ACAP, KT and KA) is our proposal to DC development. From these critical KM processes, and given its special relevance to renew knowledge in a systematic way (through sensing, seizing, and reconfiguration tasks), organizations deploy DC. This continuous and systematic cycle of knowledge renewal makes the company reconfigure and renew its knowledge base in a permanent way, from the constant scanning of the environment (sensing- ACAP), the dissemination through the organization of the acquired knowledge (seizing- KT), and its subsequent implementation resulting in a new reconfiguration (reconfiguring- KA). This systematic and permanent renewal is what we have identified as a DC. Thirdly, in this study we relate internal organizational processes, such as KM processes, and how these processes affect the value created for the customers: a key variable for companies in order to achieve better results and be more competitive.

Finally, our study tries to respond to the calls in the literature on DC, requesting less abstract developments and more operations that help managers. This objective should be done through processes that can be administered directly and not through more or less

abstract variables that sometimes limit the manager's capacity for action (Laaksonen and Peltoniemi, 2012).

In terms of managerial implications, our work could improve the current management of enterprises by allowing firms to enhance their results and reach superior performance. First, this work aims to show managers how they can create an appropriate environment in companies so that they can manage all the knowledge at their fingertips, for instance, developing information and business intelligence systems that meet all the tasks of KM processes, and that help them to generate customer value as a means to achieve better results.

Second, our goal is to provide a guide for executives and managers regarding the firm's orientation towards the development of DC, and how to create customer value. Organizations must rely on a permanent process of change and adaptation, designing flexible structures that shorten decision-making processes and their implementation.

Finally, both for academics and professionals, this work presents the identification of DC and the creation of customer value as key factors to improve the management of organizations and thereby the achievement and sustainment of competitive advantages over time.

5.5. CONCLUSIONS, LIMITATIONS AND FUTURE RESEARCH

In this study, we argue that companies acting in a tremendously competitive and changing environment need to be especially aware of the need to generate superior customer value. To create this value, firms ought necessarily to combine and properly renew their organizational capabilities, which must be customer-focused and able to permanently adapt to their environment changes. The dynamism and the uncertainty inherent to markets actively hinder the sustaining of competitive advantages over time. Therefore, companies must continuously create new customer value while maintaining the value created in previous periods (Eisenhardt and Martin, 2000; Morrow et al., 2007; Sirmon et al., 2007).

This study offers a way to develop DC and to help companies to focus on the customer through the combination and interrelationship of three critical KM processes: ACAP, KT, and KA. Our model presents these processes as a knowledge cycle or spiral that constitutes a DC in itself, and that generates synergies in the organization that create customer value; thus significantly predisposing the organization to achieve better results and maintain sustainable advantages.

As a limitation to our work, it focuses on three KM processes that we have considered critical due to their special interrelation with the microfoundations of DC and its effect on customer value; however, several more processes could have been included, and other capabilities could have been considered. Another limitation is that this study involves a theoretical model proposition, which is not empirically validated. In this vein, future

research will carry out an empirical testing of this model to prove its validity and impact on organizational management and performance.

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CAPÍTULO 6

OVERALL CONCLUSIONS, IMPLICATIONS, LIMITATIONS AND FUTURE LINES OF RESEARCH

CAPÍTULO 6: OVERALL CONCLUSIONS, IMPLICATIONS, LIMITATIONS AND FUTURE LINES OF RESEARCH

6.1. INTRODUCTION

This doctoral dissertation aims to recognize the high relevance that several aspects, such as knowledge management (KM) processes, organizational learning and unlearning, and orientation toward the continuous creation of high-order or dynamic capabilities, have in order to effectively compete within the currently uncertain, turbulent and constantly changing environment. Chapter 1 highlights the role that these capabilities perform as strategic tools that may lead to business performance enhancement and the achievement of sustainable competitive advantages.

The core of this research is focused on the disentanglement of the ties between the firm's knowledge management processes, organizational learning and unlearning, and organizational outcomes (specifically, customer value and quality of service), as was set out chapter 1. The main objective of this thesis deals with a deeper understanding of the roles played by the firm's KM processes- absorptive capacity (ACAP), knowledge transfer (KT), knowledge stock (KS) and knowledge application (KA)- and organizational learning and unlearning, and their influence on customer value and quality of service.

This study broadly approaches this purpose by meaning to answer the following research questions which are divided into three blocks:

1. Has organizational unlearning a positive relationship with the quality of service?
2. Has absorptive capacity (ACAP) a positive relationship with customer value? What is the effect of knowledge stock (KS) and knowledge application (KA) on the link between ACAP and value?
3. Is the combination and interrelationship between the firm's KM processes (ACAP, KT and KA) a dynamic capability? Has the combination and interrelationship between the firm's KM processes a positive relationship with customer value?

In order to answer the first question, we have divided it into three issues:

a. Has organizational unlearning a positive relationship with the exploration and exploitation of knowledge?
b. Has the exploration and exploitation of knowledge a positive relationship with relational and technology knowledge (i.e., knowledge stock)?
c. Has the knowledge stock a positive relationship with the quality of service?

Within the exposure and development of the three central chapters, together with the theoretical background gathered in chapter 2, we have aimed to answer the main research questions and to empirically test the relationships hypothesized. The first research question and its intermediate issues are approached in chapter 3. The second block of

questions is assessed in chapter 4. Finally, the third block of questions is dealt with in chapter 5.

Next, some general conclusions are extracted from what has been pointed out in the previous chapters. Additionally, several theoretical and practical implications are posited. This chapter also highlights the work's limitations and the possible future lines of research.

6.2. OVERALL CONCLUSIONS

In this doctoral dissertation, we argue that companies acting in a tremendously competitive and changing environment need to be especially aware of the need to generate superior customer value. To create this value, firms ought necessarily to combine and properly renew their organizational capabilities. These must be customer-focused and able to permanently adapt to changes in their environment. The dynamism and the uncertainty inherent to markets actively hinder the sustaining of competitive advantages over time. Therefore, companies must continuously create new customer value while maintaining the value produced in previous periods (Eisenhardt & Martin, 2000; Morrow et al., 2007; Sirmon et al., 2007).

In this work, based on the prior related literature, we develop several research models in order to link the firm's KM processes, and organizational learning and unlearning with customer value and the quality of service in the Spanish banking industry (SBI).

The first research model was developed in the paper presented in chapter 3. This links organizational unlearning with the quality of service through individual learning capabilities (i.e., exploration and exploitation) and knowledge stocks or bases (i.e., relational and technology knowledge). In this paper, we hypothesize and empirically test all the research questions in the SBI.

A second research model was presented in chapter 4 that links ACAP and customer value. In addition, in this research model, we hypothesize and test the mediating effects of KS and KA on this tie. In this paper, we hypothesize and empirically test all the research questions in the SBI.

The third research model, included in chapter 5, links the combination and interrelationship between ACAP, KT and KA with customer value. Here we first hypothesize a positive relationship between the combination and interrelationship of KM processes (ACAP, KT and KA) and customer value. In addition, in this model we hypothesize that the combination and interrelationship between those KM processes constitute a dynamic capability. This item, presented in chapter 5, involves a theoretical model proposition which has not yet been empirically validated. The hypotheses proposed will be empirically tested in a future work.

Now, we point out the main conclusions of the three works and research models included in this thesis. Our study establishes important conclusions about the role of organizational unlearning in knowledge creation (i.e., organizational learning) and its influence on the quality of service. The study considers the learning forms (i.e., exploration and exploitation) and knowledge stocks (i.e., relational and technology knowledge) that bank

managers generate through their relationships with customers. The results support the view that to create relational and technology knowledge and, hence, foster the adoption of new practices, banks must build and foster an unlearning context. Therefore, our findings support that unlearning has a positive relationship with the learning forms (i.e., exploration and exploitation), exploration and exploitation have a positive relationship with relational and technology knowledge (i.e., knowledge stock), and, in turn, this knowledge stock has a positive link with the quality of service.

These findings suggest that, through an unlearning context, banks enable people to adjust their mental models and the nature of the assumptions which they share in order to break with the current workplace culture. Managers need to create a context of continuous unlearning because old and outdated knowledge can impede an adaptation to new configurations. Moreover, relational and technology knowledge allow banking firms to enhance service quality. As was established in our assumptions, the potential for any service firm to preserve and maintain the quality of its services greatly depends on its ability to acquire and assimilate new ideas.

In this thesis, we also link ACAP with the customer value. The approach herein is to place ACAP at the beginning of the process, as a main antecedent of customer value, while KS and KA play mediating roles between ACAP and customer value. The results show that ACAP is a main antecedent of customer value. This finding is consistent with the prior literature about KM and ACAP (Cohen & Levinthal, 1990). In addition, the study points out that KS and KA play a mediating role in this relationship, having different results. The results support that ACAP affects customer value, both directly and also indirectly,

through KA and via the multiple effect of KS and KA, but not through the mediating role of KS. Therefore, according to the prior literature (Ahuja & Katila, 2001; Alavi & Leidner, 2001; Martelo-Landroguez et al., 2011), this finding contributes to confirming that the absorbed knowledge must be applied in order to achieve a superior value. If knowledge is stored yet not applied, then a superior value will not be achieved.

This thesis also analyzes, based on the prior literature (Helfat & Peteraf, 2009; Teece, 2007, 2009), the link between KM processes (ACAP, KT and KA) and the microfoundations of the dynamic capabilities (i.e., sensing, seizing and reconfiguring). Firms carry out a number of internal processes aiming at creating and capturing value from the market. Therefore, these processes are critical to organizational success (Chou, 2005; Van den Hooff & Huysman, 2009). Without these critical KM processes, companies may not take advantage of the knowledge they possess (Ipe, 2003). The study offers a way to develop dynamic capabilities and help companies to focus on the customer, through the combination and interrelationship of three critical KM processes: ACAP, KT, and KA. The findings present these processes as a knowledge cycle that constitutes a dynamic capability, and that generates synergies in the organization to create customer value and, therefore, to achieve better results and sustainable advantages. In this vein, the relationship between KM processes generates a knowledge cycle in such a way that the more dynamism the cycle has and the more quickly the knowledge acquired is processed, transferred and applied, the more quickly the company will develop effective dynamic capabilities and, hence, achieve better results and tenable competitive advantages.

6.3. THEORETICAL AND PRACTICAL IMPLICATIONS

The Spanish banking industry (SBI) is a great example of a customer-oriented and knowledge-intensive industry. Its firms are required to be constantly aware of the changes, needs, and requirements demanded by its customers and the strong dynamism of the competitive environment. The acquisition and exchange of pertinent information and knowledge and its further absorption, transfer and application within the firm becomes a fundamental step in the path of creating superior customer value and enhancing performance.

This thesis provides some interesting contributions to the literature. First, we have carried out a thorough theoretical review of the prior literature concerning interesting constructs and topics. Customer value is a subject of increasing interest for firms because all companies wish to find out ways to increase the creation and appropriation of value. Organizational knowledge is considered to be a pivotal strategic resource. As it is difficult to transfer or replicate, it serves as a basis for the generation of sustainable competitive advantages (Real-Fernández, 2003; Teece et al., 1997; Zander & Kogut, 1995). Organizational learning and unlearning are also considered to be strategic tools for knowledge creation and for the renewal of obsolete knowledge.

Second, the procedure followed in this thesis, besides its thorough theoretical review, includes an empirical study of knowledge-intensive and customer-oriented organizations that belong to the Spanish banking industry (SBI).

Third, we established a link between an unlearning context and the service firms outcomes. Furthermore, that relationship is through a learning process both at the individual level (exploration and exploitation) and at the organizational level (relational and technology knowledge). The study highlights that service firms may be investing too heavily in the adoption of knowledge through exploration processes and investing too little in mechanisms to facilitate the unlearning of inappropriate knowledge.

Fourth, the study goes more deeply into the relationships between some KM processes and value for the internal and external customer, from the perspective of the value outcome which can derive from delivering superior value by managing knowledge (i.e., considering value as the appropriation or value captured by companies). In this sense, we reveal that ACAP is a main antecedent of the customer value in service firms. Moreover, we show the important effect of KS and KA in the link between ACAP and customer value.

Fifth, we highlight the use in this study of the concept of dynamic capabilities. According to Teece et al. (1997), we propose that companies are able to compete in the market not only by their ability to exploit their resources and existing capabilities, but also thanks to their ability to renew and develop their organizational capabilities.

The main implications for managers are as follows. First, we point out that the financial sector, and more specifically the banking industry, is undergoing radical changes that are presenting serious challenges for banks aiming to overcome the current financial crisis. Despite opportunities for the SBI to implement knowledge-based strategic management, very few banks actually demonstrate a willingness to use their relational and technology

knowledge. The results of our study should encourage banks to reconsider learning and knowledge, to take advantage of these assets, to improve the services they offer to their customers and, therefore, to achieve sustainable competitive advantages.

Second, managers must understand that information and business intelligence systems must capture information and knowledge for its application within the firms and it must be taken into account in decision-making processes. For this reason, it is necessary for managers to understand they must invest heavily in the development of technological breakthroughs, while preserving old beliefs and traditions.

Third, the managers of firms that consider the flow of knowledge creation as a linear process (i.e., unlearning → organizational learning → knowledge stock → knowledge use) can expect to achieve higher levels of quality in their services. Consequently, managers should encourage, and create a suitable working environment for bank employees to unlearn knowledge rapidly as a first step, and use new knowledge structures effectively as a second step.

Fourth, this work aims to show managers how they can create an appropriate environment in companies so that they are able to manage all the knowledge at their fingertips. An example is developing information and business intelligence systems that meet all the tasks of KM processes, and which help them to generate customer value as a means to achieve better results. Our study finds a way for managers to attain better outcomes for banks through the capture and creation of customer value from the joint development of the absorption systems, storage and application of knowledge.

Fifth, we provide a guide for managers oriented toward the development of dynamic capabilities, and how to create customer value. Service firms (or banks) must rely on a permanent process of change and adaptation, designing flexible structures that shorten decision-making processes and their implementation.

Last, we think that the current situation in the SBI is perfectly suitable for our study. The financial environment - i.e., mergers of banks - are an ideal source for the reconfiguration of their organizational capabilities and to face the cultural and organizational changes in the new banks which have arisen in the process of the SBI's restructuring. For this reason, we think that this thesis could give managers useful strategic tools and capabilities to improve their firms' outcomes. Moreover, the generation of dynamic capabilities could help Spanish banks to create sustainable competitive advantages supported by the KM processes proposed. In this sense, the development of an environment or culture that foster the continuous renewal of organizational capabilities could become the real catalyst for the change that the SBI is demanding.

6.4. LIMITATIONS AND FUTURE LINES OF RESEARCH

This thesis, like every empirical study, has some limitations. These limitations should be considered when assessing and generalizing the results. They are mentioned below together with future lines of research.

First, the current study is carried out in a particular geographical context (Spain), in a specific economic sector (banking industry) and with a concrete sample of banks

(commercial retail banks). For these reasons, we must be careful about generalizing these results and conclusions to other sectors, profiles of firms or different contexts. It might be interesting to reproduce this study within a different geographical area or economic sector as this would provide an opportunity to extend our research to different scenarios and observe the differences and similarities that may appear. A second limitation is the study's cross-sectional nature. The constructs assessed are highly dynamic and this is why future research could include a longitudinal study which may enable us to confirm the relationships and hypotheses established in this thesis. Third, concerning the methodological approach, the application of structural equation modeling involves causal relationships being linear. This causality in itself has not been tested.

We consider this thesis as a first step for future research. These lines of investigation are linked to the limitations indicated. First, as we have previously mentioned, it would be interesting to carry out a longitudinal study to analyze and compare the results over time. Second, it would also be of interest to carry out the research in other sectors or geographical areas. In another context, we could achieve generalized and more consistent findings. Third, the paper presented in chapter 5 is a theoretical article and its propositions have not been empirically tested. For this reason, the next step will be to carry out the empirical study. Finally, it would be valuable to analyze the research models and the results by introducing new or different capabilities, or, due to the present thesis having been carried out from the bank's point of view, by changing the focus to the customer's viewpoint.

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APÉNDICES

APÉNDICE A: QUESTIONNAIRE ITEMS

ENCUESTA SOBRE GESTIÓN DEL CONOCIMIENTO Y PERCEPCIONES DEL SISTEMA BANCARIO ESPAÑOL

INSTRUCCIONES

- **Por favor, conteste <u>todas</u> las preguntas.**
- **No existen respuestas correctas, sólo queremos conocer <u>su opinión</u> sobre las cuestiones planteadas.**
- **Si de alguna de las preguntas no está totalmente seguro de la respuesta, no importa, nos interesa su estimación.**
- **La mayoría de las preguntas consiste en responder entre 1 (no se está de acuerdo con la afirmación) a 7 (se está totalmente de acuerdo con la afirmación). El resto de valores gradúan estos dos extremos. Marque con una cruz o con un círculo el valor más apropiado en cada caso.**
- **Una vez contestada la encuesta, simplemente introdúzcala en el sobre que se le adjunta y envíela por correo, <u>no</u> <u>necesita</u> <u>sello</u>.**
- **Si tiene alguna duda en cualquier aspecto, no dude en contactar con nosotros.**

Si desea que se le envíe <u>un resumen de las investigaciones</u> realizadas, así como un <u>informe de su sector</u>, por favor indíquenos una dirección de correo electrónico a la que poder enviar dicha información: _____

GESTIÓN DEL TALENTO Y DEL CONOCIMIENTO

P1.- La dirección de mi empresa …	**Total Desacuerdo**						**Total Acuerdo**
Está abierta a nuevas ideas y modos de hacer las cosas	1	2	3	4	5	6	7
Emprende continuamente nuevos proyectos	1	2	3	4	5	6	7
Reconoce el valor de la información nueva y es capaz de interpretarla	1	2	3	4	5	6	7
Adopta las sugerencias de los empleados en forma de nuevas rutinas y procesos	1	2	3	4	5	6	7
Colabora con los empleados en la solución de problemas e imprevistos	1	2	3	4	5	6	7
Se preocupa de que el modo de responder ante imprevistos sea conocido por todos	1	2	3	4	5	6	7
Los empleados de mi empresa …	**Total Desacuerdo**						**Total Acuerdo**
Identifican con facilidad los problemas (nuevas formas de hacer las cosas,…)	1	2	3	4	5	6	7
Identifican con facilidad los errores de sus compañeros	1	2	3	4	5	6	7
Escuchan atentamente a los clientes (por ejemplo, quejas y sugerencias)	1	2	3	4	5	6	7
Comparten con sus superiores la información procedente de las quejas y reclamaciones	1	2	3	4	5	6	7
Tratan de reflexionar y aprender de sus propios errores	1	2	3	4	5	6	7
P2.- La dirección ayuda a que los empleados en su trabajo ...	**Total Desacuerdo**						**Total Acuerdo**
Identifiquen sus propios errores	1	2	3	4	5	6	7
Reconozcan actitudes no deseadas	1	2	3	4	5	6	7
Identifiquen comportamientos inadecuados	1	2	3	4	5	6	7
Reconozcan formas de razonar o de llegar a soluciones no adecuadas	1	2	3	4	5	6	7
Cambien su forma de comportarse	1	2	3	4	5	6	7

Cambien su actitud	1	2	3	4	5	6	7
Cambien su modo de pensar	1	2	3	4	5	6	7
P3.- En mi empresa ...	**Total Desacuerdo**						**Total Acuerdo**
Las unidades o departamentos se relacionan con la alta dirección para adquirir nuevos conocimientos	1	2	3	4	5	6	7
Los empleados de una unidad o departamento visitan con regularidad otras unidades o departamentos	1	2	3	4	5	6	7
Se recoge información con medios informales (comidas con amigos de otros departamentos, charlas con compañeros de nuestra oficina,…)	1	2	3	4	5	6	7
No se visitan otras áreas	1	2	3	4	5	6	7
Es habitual organizar reuniones especiales con clientes o terceros para adquirir nuevos conocimientos	1	2	3	4	5	6	7
Los empleados se reúnen regularmente con profesionales externos como asesores, gestores o consultores	1	2	3	4	5	6	7
Somos muy lentos en identificar cambios en el mercado (competencia, leyes, cambios en demografía, …)	1	2	3	4	5	6	7
Se identifican rápidamente las nuevas oportunidades que surgen para servir a los clientes	1	2	3	4	5	6	7
Analizamos e interpretamos rápidamente los cambios que proceden del mercado	1	2	3	4	5	6	7
Analizamos e interpretamos rápidamente los cambios en los gustos de nuestros clientes	1	2	3	4	5	6	7
P4.- En mi empresa ...	**Total Desacuerdo**						**Total Acuerdo**
Se consideran habitualmente las consecuencias de los cambios en los mercados sobre los nuevos servicios	1	2	3	4	5	6	7
Los empleados conservan y archivan la nueva información para un uso futuro	1	2	3	4	5	6	7
Se entiende el valor del nuevo conocimiento adquirido sobre el ya existente	1	2	3	4	5	6	7
Los empleados rara vez comparten entre sí experiencias sobre el trabajo	1	2	3	4	5	6	7
Raramente se aprovechan las oportunidades que surgen del nuevo conocimiento adquirido	1	2	3	4	5	6	7
Nos reunimos periódicamente para discutir acerca de las nuevas tendencias del mercado y sobre el desarrollo de nuevos servicios	1	2	3	4	5	6	7
Se conocen claramente cómo deben ser mejoradas las actividades de la empresa	1	2	3	4	5	6	7
Las quejas de los clientes caen en saco roto	1	2	3	4	5	6	7
Existe una clara división de roles y responsabilidades	1	2	3	4	5	6	7
Se estudia constantemente cómo explotar el conocimiento de la mejor forma posible	1	2	3	4	5	6	7
Existen dificultades a la hora de desarrollar nuevos servicios	1	2	3	4	5	6	7
Los empleados tienen un lenguaje común respecto a los nuevos servicios	1	2	3	4	5	6	7
P5.- Mi empresa dispone de procesos para ...	**Total Desacuerdo**						**Total Acuerdo**
Incorporar el conocimiento a la puesta en marcha de nuevos servicios	1	2	3	4	5	6	7
Convertir el conocimiento adquirido sobre la competencia en planes de acción	1	2	3	4	5	6	7
Seleccionar el conocimiento adecuado en cada situación	1	2	3	4	5	6	7
Transferir el conocimiento organizativo a los empleados	1	2	3	4	5	6	7
Incorporar en la empresa el conocimiento de los empleados	1	2	3	4	5	6	7
Incorporar en la empresa el conocimiento de otras empresas	1	2	3	4	5	6	7
Distribuir el conocimiento por toda la empresa	1	2	3	4	5	6	7
Integrar diferentes orígenes y tipos de conocimiento	1	2	3	4	5	6	7
Organizar el conocimiento	1	2	3	4	5	6	7
Reemplazar el conocimiento obsoleto	1	2	3	4	5	6	7
P6.- Mi empresa dispone de procesos para ...	**Total Desacuerdo**						**Total Acuerdo**
Aplicar lo aprendido de los errores cometidos	1	2	3	4	5	6	7
Aplicar lo aprendido a través de la experiencia	1	2	3	4	5	6	7
Usar el conocimiento en el desarrollo de nuevos servicios	1	2	3	4	5	6	7

Usar el conocimiento en la resolución de nuevos problemas	1	2	3	4	5	6	7
Encontrar rápidamente el tipo de conocimiento necesario para resolver cada problema	1	2	3	4	5	6	7
Utilizar el conocimiento para mejorar la eficiencia	1	2	3	4	5	6	7
Utilizar el conocimiento para adaptar sus planes estratégicos	1	2	3	4	5	6	7
Localizar y aplicar el conocimiento necesario para poder cambiar las condiciones competitivas	1	2	3	4	5	6	7
Lograr que el conocimiento esté disponible para todos aquellos que lo necesitan	1	2	3	4	5	6	7
Aprovechar rápidamente el nuevo conocimiento que llega a la empresa	1	2	3	4	5	6	7
Aplicar con celeridad el conocimiento necesario en situaciones competitivas urgentes y/o críticas	1	2	3	4	5	6	7
P7.- En mi empresa …	**Total Desacuerdo**						**Total Acuerdo**
Se apuesta por mantener "fresco" todo aquello que se ha venido aprendiendo en el desarrollo de servicios	1	2	3	4	5	6	7
Siempre se analizan las causas del fracaso en los procesos de desarrollo de servicios y se difunde todo lo aprendido en ellos	1	2	3	4	5	6	7
Disponemos de mecanismos específicos para poder compartir lo que se aprende en el proceso de desarrollo de servicios	1	2	3	4	5	6	7
Disponemos de procesos formales para identificar ideas erróneas en el proceso de desarrollo de servicios	1	2	3	4	5	6	7
P8.- En mi empresa ...	**Total Desacuerdo**						**Total Acuerdo**
Existen rumores maliciosos que apoyan suposiciones incorrectas	1	2	3	4	5	6	7
Existen cotilleos que se basan en mentiras, exageraciones y verdades parciales	1	2	3	4	5	6	7
Existen historias maliciosas sobre la plantilla que a menudo nos llevan a malos entendidos	1	2	3	4	5	6	7
Se comparte información no verificada mediante medios tecnológicos	1	2	3	4	5	6	7
P9.- En mi empresa …	**Total Desacuerdo**						**Total Acuerdo**
Somos capaces de responder con rapidez a peticiones especiales de nuestros clientes sean del tipo que sean	1	2	3	4	5	6	7
Cambiamos fácilmente nuestros niveles de producción o de servicio ante fluctuaciones en la demanda del mercado	1	2	3	4	5	6	7
Ante un problema de suministro de nuestros proveedores, rápidamente hacemos los ajustes necesarios para que no nos afecte	1	2	3	4	5	6	7
Somos rápidos en tomar e implantar aquellas decisiones para afrontar los cambios del mercado o clientes	1	2	3	4	5	6	7
Continuamente se buscan modos de reinventar o rediseñar la organización para atender mejor a los clientes	1	2	3	4	5	6	7
Los cambios en el mercado y el caos aparente se ven como oportunidades rápidas de capitalización	1	2	3	4	5	6	7
P10.- En mi empresa…	**Total Desacuerdo**						**Total Acuerdo**
Conocemos claramente los objetivos de negocio	1	2	3	4	5	6	7
Los empleados se "caen" realmente bien los unos a los otros	1	2	3	4	5	6	7
Los empleados siguen directrices e instrucciones claras acerca del trabajo	1	2	3	4	5	6	7
Las personas se llevan muy bien entre ellas y las disputas son poco comunes	1	2	3	4	5	6	7
Los malos resultados se tratan rápidamente y con firmeza	1	2	3	4	5	6	7
Los empleados interactúan y hacen a menudo vida social fuera del trabajo	1	2	3	4	5	6	7
Queremos realmente "ganar", triunfar en el mercado	1	2	3	4	5	6	7
Los empleados se hacen mutuamente favores porque se caen bien	1	2	3	4	5	6	7
Cuando surgen oportunidades para lograr una ventaja competitiva, los empleados se movilizan con decisión para aprovecharlas	1	2	3	4	5	6	7
Los empleados hacen amigos en aras de la propia amistad – no existe una segunda intención	1	2	3	4	5	6	7

Las metas estratégicas de la empresa se ponen en conocimiento de los empleados	1	2	3	4	5	6	7
Las personas suelen confiar a los compañeros cuestiones personales	1	2	3	4	5	6	7
Las personas construyen estrechas relaciones a largo plazo – algunas de las cuales podrían ser beneficiosas en algún momento futuro	1	2	3	4	5	6	7
Las recompensas (premios) y los castigos (sanciones) son claros y patentes	1	2	3	4	5	6	7
Las personas saben bastante acerca de las familias de los otros compañeros de trabajo	1	2	3	4	5	6	7
Estamos decididos a vencer con claridad a cualquier enemigo definido	1	2	3	4	5	6	7
Siempre se anima a las personas a que resuelvan los problemas (con flexibilidad) a medida que van ocurriendo	1	2	3	4	5	6	7
El cumplimiento de objetivos es la única cosa importante	1	2	3	4	5	6	7
Los proyectos que se comienzan se terminan	1	2	3	4	5	6	7
Cuando las personas dejan la organización, sus antiguos compañeros de trabajo permanecen en contacto con ellos para conocer qué tal le van las cosas	1	2	3	4	5	6	7
Está claro dónde finaliza el trabajo de una persona y dónde comienza el de otra	1	2	3	4	5	6	7
Las personas se protegen las unas a las otras	1	2	3	4	5	6	7
Puedes esquivar o saltarte los sistemas formales con el fin de hacer tu trabajo	1	2	3	4	5	6	7
P11.- Señale el acuerdo o desacuerdo con la aceptación y uso del sistema EDITRAN por parte de sus clientes	**Total Desacuerdo**						**Total Acuerdo**
Mis clientes encuentran que EDITRAN es útil para su trabajo	1	2	3	4	5	6	7
El uso de EDITRAN permite a mis clientes realizar las tareas más rápidamente	1	2	3	4	5	6	7
El uso de EDITRAN incrementa la productividad de mis clientes	1	2	3	4	5	6	7
Mis clientes piensan que si usan EDITRAN, podrán incrementar sus oportunidades de lograr cosas que son importantes para ellos (negocio, resultados, costes, etc.)	1	2	3	4	5	6	7
La interacción con el sistema EDITRAN es clara y comprensible	1	2	3	4	5	6	7
Es fácil para mis clientes volverse habilidosos en el uso de EDITRAN	1	2	3	4	5	6	7
Los clientes encuentran EDITRAN fácil de usar	1	2	3	4	5	6	7
Aprender a usar EDITRAN es fácil para mis clientes	1	2	3	4	5	6	7
Mis clientes piensan que creo que deberían usar EDITRAN	1	2	3	4	5	6	7
La alta dirección de mi organización ha apostado por ofrecer EDITRAN	1	2	3	4	5	6	7
En general, la organización ha apoyado el uso de EDITRAN entre mis clientes	1	2	3	4	5	6	7
Mis clientes tienen los recursos necesarios para usar EDITRAN	1	2	3	4	5	6	7
Mis clientes tienen el conocimiento necesario para usar EDITRAN	1	2	3	4	5	6	7
EDITRAN es compatible con otros sistemas que usan mis clientes	1	2	3	4	5	6	7
Mis clientes pueden obtener ayuda nuestra o de otros cuando tienen dificultades en el uso de EDITRAN	1	2	3	4	5	6	7
El uso de EDITRAN se ha vuelto un hábito para mis clientes	1	2	3	4	5	6	7
A mis clientes le gusta usar EDITRAN	1	2	3	4	5	6	7
Mis clientes han de usar EDITRAN	1	2	3	4	5	6	7
El uso de EDITRAN se ha vuelto natural para mis clientes	1	2	3	4	5	6	7
Tenemos la intención de continuar usando EDITRAN en el futuro	1	2	3	4	5	6	7
Mis clientes utilizan EDITRAN en su actividad diaria	1	2	3	4	5	6	7
Prevemos que mis clientes van a continuar usando EDITRAN frecuentemente	1	2	3	4	5	6	7
De media, ¿cuántas horas por semana cree que usan sus clientes EDITRAN? (Pregunta abierta):							
Con qué frecuencia usan EDITRAN sus clientes. (1 = Extremadamente infrecuente; 7 = Extremadamente frecuente)	1	2	3	4	5	6	7
En términos medios, ¿cuántas veces usan EDITRAN sus clientes por semana?(1 = Nunca; 2 = Menos de una vez por semana; 3 = Una vez por semana; 4 = Dos veces por semana; 5 = Tres veces por semana; 6 = Una vez por día; 7 = Varias veces al día)	1	2	3	4	5	6	7

PERCEPCIONES DEL SISTEMA BANCARIO

P12.- Puntúe, por favor, en una escala de 1 (muy en desacuerdo) a 7 (muy de acuerdo) las siguientes afirmaciones relacionadas con su comportamiento como BANCO principal de una gran empresa	**Total Desacuerdo**						**Total Acuerdo**
Estamos siempre dispuestos a servir a la empresa	1	2	3	4	5	6	7
El trato es respetuoso y cordial	1	2	3	4	5	6	7
Se demuestra tener un conocimiento especializado sobre el trabajo (competencia profesional, etc.)	1	2	3	4	5	6	7
Se responde rápidamente a sus peticiones	1	2	3	4	5	6	7
Se prestan los servicios correctamente a la primera	1	2	3	4	5	6	7
Hay flexibilidad con respecto a las peticiones realizadas por la empresa	1	2	3	4	5	6	7
Se mantienen registros correctos sobre la empresa (datos, etc.)	1	2	3	4	5	6	7
Se implementan medidas de seguridad que protegen a la empresa	1	2	3	4	5	6	7
Se dispone de un sistema de identificación seguro para la empresa	1	2	3	4	5	6	7
Hay preocupación por la privacidad de la empresa	1	2	3	4	5	6	7
Los clientes piensan que no se comparte información confidencial sobre ellos	1	2	3	4	5	6	7
Las oficinas del banco están diseñadas para prestar un buen servicio (personal, espacios, etc.)	1	2	3	4	5	6	7
El banco dispone de un equipamiento moderno en su estilo (mobiliario, aire acondicionado, etc.)	1	2	3	4	5	6	7
El ambiente del banco es el apropiado para el propósito de la gestión (cómodo, limpio, tranquilo, etc.)	1	2	3	4	5	6	7
Es fácil llegar a la oficina del banco (transporte, aparcamiento, etc.)	1	2	3	4	5	6	7
En general, el acceso de las empresas a los responsables de su cuenta se hace de forma rápida	1	2	3	4	5	6	7
El banco tiene un horario de funcionamiento y atención conveniente para estas empresas	1	2	3	4	5	6	7
Conseguir información acerca de los servicios que ofrece el banco es fácil	1	2	3	4	5	6	7
En general, estas grandes empresas completar sus gestiones bancarias rápidamente	1	2	3	4	5	6	7
En general, creo que el banco ofrece un servicio excelente a estas empresas	1	2	3	4	5	6	7
Creo que mi banco actúa en el mejor interés de las empresas	1	2	3	4	5	6	7
Mi banco tiene en cuenta las repercusiones que sus acciones pueden tener sobre estas empresas	1	2	3	4	5	6	7
Si una empresa necesitara ayuda, mi banco haría lo máximo por ayudarla	1	2	3	4	5	6	7
Mi banco está interesado en los resultados de las empresa y no únicamente en los suyos	1	2	3	4	5	6	7
Mi banco es transparente en la realización de las operaciones con las empresa	1	2	3	4	5	6	7
Puedo describir a mi banco como honesto	1	2	3	4	5	6	7
Mi banco se caracteriza por su franqueza y transparencia	1	2	3	4	5	6	7
Mi banco cumplirá sus compromisos adquiridos con las empresas	1	2	3	4	5	6	7
Mi banco es competente y efectivo en la prestación de sus servicios	1	2	3	4	5	6	7
En general, mi banco es un proveedor cualificado de servicios financieros	1	2	3	4	5	6	7
Creo que se puede confiar en mi banco	1	2	3	4	5	6	7
Considero que las tarifas (gastos, comisiones, etc.) que cobra el banco son razonables	1	2	3	4	5	6	7
Mi valoración del precio cobrado por los servicios bancarios ofrecidos es positiva	1	2	3	4	5	6	7
Considerando los beneficios obtenidos por el banco, las tarifas cobradas me parecen justas	1	2	3	4	5	6	7
En general, las tarifas cobradas por el banco me parecen razonables, dados los costes y riesgos que supone las empresas clientes	1	2	3	4	5	6	7
Comparando con el precio de otros bancos, el precio que mi banco cobra es un precio normal	1	2	3	4	5	6	7

Comparando con el porcentaje de beneficios de otros bancos, los beneficios obtenidos por mi banco me parecen justos	1	2	3	4	5	6	7

P13.- Puntúe, por favor, en una escala de 1 (muy en desacuerdo) a 7 (muy de acuerdo) las siguientes afirmaciones relacionadas con la evaluación de su experiencia de servicio a sus clientes	**Total Desacuerdo**						**Total Acuerdo**
Las empresas clientes de mi banco se sienten tranquilos	1	2	3	4	5	6	7
Los clientes sienten que el banco simplifica sus problemas	1	2	3	4	5	6	7
Las empresas que trabajan con mi banco sesienten liberadas y relajadas, sin estrés	1	2	3	4	5	6	7
En este banco, la privacidad y seguridad de la empresa están garantizadas	1	2	3	4	5	6	7
Los clientes colaboran para que los servicios resulten más satisfactorios	1	2	3	4	5	6	7
Los clientes se sienten informados de todo lo necesario por parte del responsable de su cuenta	1	2	3	4	5	6	7
Las empresas sienten que el resultado del servicio prestado por el banco está bajo su control	1	2	3	4	5	6	7
Las empresas sienten que reciben un trato preferente (comparado con otros clientes)	1	2	3	4	5	6	7
Las empresas saben que le ofrecemos condiciones especiales por el tipo de cliente que representan	1	2	3	4	5	6	7
Existe una relación de amistad con los representante de estas empresas	1	2	3	4	5	6	7
En general, estas empresas están satisfechas con los servicios proporcionados por el banco	1	2	3	4	5	6	7
Estas empresas saben aciertan eligiendo este banco; el servicio recibido corresponde a lo que esperan	1	2	3	4	5	6	7
Seguiremos como banco de estas empresas en un futuro cercano	1	2	3	4	5	6	7
Estas empresas aunque pudieran, no cambiaría de banco; aprecian la relación que tenemos con ellos	1	2	3	4	5	6	7
Mis clientes recomiendan los servicios de mi banco	1	2	3	4	5	6	7

P14.- En comparación con otras empresas, mi empresa …	**Total Desacuerdo**						**Total Acuerdo**
Ofrece servicios de mayor calidad	1	2	3	4	5	6	7
Dispone de procesos internos más eficientes	1	2	3	4	5	6	7
Es más eficiente en el empleo de sus recursos	1	2	3	4	5	6	7
Cuenta con clientes más satisfechos	1	2	3	4	5	6	7
Se adapta antes a los cambios en el mercado	1	2	3	4	5	6	7
Sirve a los clientes con mayor rapidez	1	2	3	4	5	6	7
Está creciendo más	1	2	3	4	5	6	7
Es más rentable	1	2	3	4	5	6	7
Tiene mayor productividad	1	2	3	4	5	6	7
Tiene empleados más satisfechos / motivados	1	2	3	4	5	6	7
Tiene una menor rotación de personal	1	2	3	4	5	6	7
Tiene un menor absentismo laboral	1	2	3	4	5	6	7

MUCHAS GRACIAS POR SU COLABORACIÓN

Solo resta que nos envíe el cuestionario en el sobre que le hemos adjuntado.

APÉNDICE B: LISTS OF ENTERPRISES BELONGING TO THE SPANISH COMMERCIAL BANKING INDUSTRY

LIST OF ENTERPRISES BELONGING TO THE SPANISH COMMERCIAL BANKING INDUSTRY IN 2013. (Empirical study date).

SPANISH BANKS IN 2013	TRADE MARK
BANCO BILBAO VIZCAYA ARGENTARIA, S.A	BBVA
BANCO DE CAJA ESPAÑA, SALAMANCA Y SORIA, S.A.	ESPAÑA-DUERO
BANCO DE SABADELL, S.A	SABADELL
BANCO GRUPO CAJATRES, S.A	CAJA3
BANCO MARE NOSTRUM, S.A	BMN
BANCO POPULAR ESPAÑOL, S.A	POPULAR
BANCO SANTANDER, S.A	SANTANDER
BANKIA, S.A	BANKIA
BANKINTER, S.A	BANKINTER
CAIXABANK, S.A	CAIXA
CATALUNYA BANC, S.A	CATALUNYA BANC
IBERCAJA BANCO, S.A	IBERCAJA
KUTXABANK, S.A.	KUTXA
LIBERBANK, S.A.	LIBERBANK
NCG BANCO, S.A.	NOVACAIXAGALICIA
UNICAJA BANCO, S.A.	UNICAJA

Source. Bank of Spain. **http://www.bde.es/** **15 firms**

LIST OF ENTERPRISES BELONGING TO THE SPANISH COMMERCIAL BANKING INDUSTRY IN 2015. (Thesis date).

SPANISH BANKS IN 2015	TRADE MARK
BANCO BILBAO VIZCAYA ARGENTARIA, S.A	BBVA
BANCO DE SABADELL, S.A	SABADELL
IBERCAJA BANCO	IBERCAJA
BANCO MARE NOSTRUM, S.A	BMN
BANCO POPULAR ESPAÑOL, S.A	POPULAR
BANCO SANTANDER, S.A	SANTANDER
BANKIA, S.A	BANKIA
BANKINTER, S.A	BANKINTER
CAIXABANK, S.A	CAIXA
KUTXABANK, S.A.	KUTXA
LIBERBANK, S.A.	LIBERBANK
NCG BANCO, S.A.	ABANCA
UNICAJA BANCO, S.A.	UNICAJA

Source. Bank of Spain. **http://www.bde.es/** **13 firms**

LIST OF ENTERPRISES BELONGING TO THE SPANISH COMMERCIAL BANKING INDUSTRY IN 2008. (Before the crisis SBI date).

SPANISH BANKS IN 2008	TRADE MARK
BANCO BILBAO VIZCAYA ARGENTARIA, S.A	BBVA
CAIXA SABADELL	CAIXA SABADELL
CAIXA TERRASA	CAIXA TERRASA
CAIXA MANLLEU	CAIXA MANLLEU
CAJA ESPAÑA DE INVERSIONES	CAJA ESPAÑA
CAJA DE AHORROS DE SALAMANCA Y SORIA	CAJA DUERO
BANCO DE SABADELL, S.A	SABADELL
CAJA DE AHORROS INMACULADA	CAI
CAJA CIRCULO DE BURGOS	CAJA CIRCULO
CAJA DE AHORROS DE BADAJOZ	CAJA BADAJOZ
CAIXA DE AHORROS DE CATALUNYA	CAIXA CATALUNYA
CAIXA DE AHORROS DE TARRAGONA	CAIXA TARRAGONA
CAIXA DE AHORROS DE MANRESA	CAIXA MANRESA
CAIXA DE AHORROS DE GIRONA	CAIXA GIRONA
C.A. SAN FERNANDO, GUADALAJARA, HUELVA, JEREZ Y SEVILLA	CAJASOL
CAJA DE AHORROS DE NAVARRA	CAN
CAJA DE AHORROS DE BURGOS	CAJA BURGOS
CAJA DE AHORROS DE CANARIAS	CAJA CANARIAS
CAJA DE AHORROS DE MADRID	CAJA MADRID
CAJA DE AHORROS DE VALENCIA, CASTELLON Y ALICANTE	BANCAJA
CAJA DE AHORROS INSULAR DE CANARIAS	CAJA INSULAR
CAIXA DE AHORROS LAIETANA	CAIXA LAIETANA
CAJA DE AHORROS DE AVILA	CAJA DE AVILA
CAJA DE AHORROS DE SEGOVIA	CAJA SEGOVIA
CAJA DE AHORROS DE LA RIOJA	CAJA RIOJA
BANCO GUIPUZCOANO	BANCO GUIPUZCOANO
CAJA DE AHORROS DEL MEDITERRANEO	CAM
BANCO PASTOR	BANCO PASTOR
CAJA DE AHORROS DE JAEN	CAJA JAEN
CAJA DE AHORROS DE GALICIA	CAIXA GALICIA
CAJA DE AHORROS DE VIGO, ORENSE Y PONTEVEDRA	CAIXA NOVA
CAJA DE AHORROS DE CORDOBA	CAJASUR
CAJA DE AHORROS DE BILBAO Y VIZCAYA	BBK

CAJA DE AHORROS DE VITORIA Y ALAVA	CAJA VITAL
CAJA DE AHORROS DE GUIPUZCOA Y SAN SEBASTIAN	KUTXA
CAJA DE AHORROS DE MURCIA	CAJA MURCIA
CAIXA DE AHORROS DEL PENEDÉS	CAIXA PENEDÉS
BANCO POPULAR ESPAÑOL, S.A	POPULAR
BANCO DE VALENCIA	BANCO DE VALENCIA
BANCO GALLEGO	BANCO GALLEGO
CAJA DE AHORROS DE GRANADA	CAJA GRANADA
CAJA DE AHORROS DE BALEARES	SA NOSTRA
BANCO SANTANDER, S.A	SANTANDER
BANCO ESPAÑOL DE CRÉDITO	BANESTO
BANKINTER, S.A	BANKINTER
CAJA DE AHORROS DE BARCELONA	LA CAIXA
CAJA DE AHORROS DE ZARAGOZA, ARAGÓN Y RIOJA	IBERCAJA
CAJA DE AHORROS DE CASTILLA LA MANCHA	CCM
CAJA DE AHORROS DE ASTURIAS	CAJASTUR
CAJA DE AHORROS DE EXTREMADURA	CAJA EXTREMADURA
CAJA DE AHORROS DE CANTABRIA	CAJA CANTABRIA
CAJA DE AHORROS DE RONDA, CADIZ, ALMERIA, MALAGA Y ANTEQUERA	UNICAJA

Source. Bank of Spain. **http://www.bde.es/** **53 firms**

APÉNDICE C: PUBLISHED WORKS

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Linking unlearning with service quality through learning processes in the Spanish banking industry☆

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ABSTRACT

Knowledge, like other resources, can quickly become obsolete. Thus, actors in an economy must constantly update their knowledge to keep pace with ongoing changes in their operational environment. This study explores unlearning's influence on two forms of learning (i.e., exploration and exploitation of knowledge). The study also adopts a dynamic management focus to analyze the influence of these two individual learning capabilities and their ability to help firms align technology knowledge and relational knowledge. This study reaches important conclusions on unlearning's role in knowledge management. The study examines learning processes and knowledge stocks (i.e., technology and relational knowledge) that practitioners (managers) within service firms generate through their relationships with customers. This study explores how an unlearning context can help service firms align learning processes (i.e., exploration and exploitation) through an empirical study of 150 managers in the Spanish banking industry.

1. Introduction

The strategic management literature defines absorptive capacity (ACAP) as a firm's "ability to recognize the value of new information, assimilate, and apply that information to commercial ends" (Cohen & Levinthal, 1990). Kim (1998) defines absorptive capacity as the learning ability and problem-solving skills that enable firms to assimilate knowledge and create new knowledge. Absorptive capacity is a function of the organization's existing resources, existing tacit and explicit knowledge, internal routines, management competences, and culture (Gray, 2006). Absorptive capacity results from a prolonged process of knowledge accumulation in conjunction with a strong ability to recognize and appreciate new valuable knowledge to produce more innovations.

Some scholars use the idea of knowledge assimilation or creation to characterize how prior knowledge may pave the way for future opportunities (Shane, 2000). Thus, knowledge creation and learning processes map out a path toward assimilating and deploying knowledge (Short, Ketchen, Shook, & Ireland, 2009). Consequently, these learning processes have a close relation with Zahra and George's (2002) notion of ACAP, and more specifically, to the realized absorptive capacity dimension (RACAP). RACAP refers to a firm's capacity to develop and refine the routines that facilitate the combining of existing knowledge and newly acquired and assimilated knowledge (Zahra & George, 2002). An exploitation capability supplements this transformation capability in RACAP. The exploitation capability refers to a firm's capacity to deploy the newly acquired knowledge in products or services. Doing so helps firms to improve their product/service offers, improve organizational procedures and processes, and ultimately achieve a financial profit.

Two classical dimensions define the ACAP term. Whereas the term potential absorptive capacity (PACAP) commonly refers to the capacity to acquire and assimilate knowledge, RACAP covers transformation and exploitation capabilities. "Transformation denotes a firm's capability to develop and refine the routines that facilitate combining existing knowledge and the newly acquired and assimilated knowledge" (Zahra & George, 2002, p. 190). Transformation thus involves inventing new interpretations of existing knowledge, adding new knowledge, and deleting pieces of old knowledge. Exploitation refers to "a firm's ability to harvest and incorporate knowledge into its operations" (Zahra & George, 2002, p. 190). RACAP reflects the firm's capacity to leverage absorbed knowledge and transform this knowledge into an innovation outcome such as new goods and services (Fosfuri & Tribó, 2008; Purvis, Sambamurthy, & Zmud, 2001).

Unlearning helps managers to reorient organizational values, norms, and behaviors by changing cognitive structures, mental models, dominant logics, and core assumptions that guide behavior (Cepeda, Cegarra, & Jimenez, 2012). Firms can thereby use unlearning to gain competitive. Thus, unlearning contributes by laying the foundation to improve quality. As Cepeda, Cegarra, Martinez, and Eldridge (2011) point out, to sustain quality in a dynamic environment, firms must be

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able to renew their knowledge bases. Consequently, organizations should create an internal context where they can value and combine the newly generated knowledge from firm–customer interactions (relational) and technology with existing knowledge to provide better services. This study analyzes these knowledge processes.

Thus, the study's contribution consists of analyzing the relationship between unlearning and core knowledge processes in the specific service domain (banking) so that these firms can improve the financial services they provide. The following sections of the study present the concepts of technology and relational knowledge. These concepts enable the linking of knowledge stocks to quality improvement capacity in the Spanish banking industry.

2. Conceptual framework

Organizations possess stocks of knowledge. These knowledge stocks represent knowledge within people and machines. Hence, this study's conceptual framework uses concepts such as relational knowledge and technology knowledge.

In this study, relational knowledge refers to the knowledge arising from a manager's relationship with his or her customers (Cepeda-Carrión, Cegarra, Martinez Caro, & Eldridge, 2011). Relational knowledge consists of the acquisition of knowledge from internal experience and from hours of experience in customer–manager relationships. Relational knowledge may take shape through an interpretation of the current situation and/or physical environment, which may be ambiguous, inconsistent, or complex. Managers may read these interpretations differently, which results in contradictory actions and misunderstandings. Relational knowledge may come from ostensibly unreliable sources that are in fact trustworthy. The recipient may ignore or internally readjust this knowledge. This reaction from the recipient may be the result of personal reasons such as personality differences or a lack of trust.

Designating a correct source as unreliable may also be the result of fixed and predetermined ideas. Alternatively, managers may draw the same incorrect conclusions and then make decisions assuming, incorrectly, that others possess the same knowledge.

Technology knowledge (t-knowledge) refers to a fuzzy set of skills—including information resources—that enable better use of technologies. T-knowledge arises from, and resides in, human activity (Herschbach, 1995), as Landies (1980) observes. While the intellectual factor is at the heart of the technological process, the process itself consists of "the acquisition and application of a corpus of knowledge concerning technique, that is, ways of doing things" (1980, p. 111). T-knowledge potentially provides technology users with the right answer in the right place at the right time (Cegarra, Cepeda, Martínez, & Salmador, 2011). 'For information communication technologies (ICT), the answer covers knowledge of operating systems and computer hardware and the ability to install and remove peripheral devices, install and remove software programs, and create and archive documents (Nohria & Gulati, 1996; Sharma, 2000; Szulanski, 1996).

Fig. 1 provides a synopsis of the previous arguments. This study examines the combination of factors that facilitate exploration and exploitation capabilities in knowledge creation. At the individual level, exploration and exploitation capabilities occur simultaneously and recursively and together constitute knowledge creation (Zahra & George, 2002).

2.1. Linking unlearning to types of learning

Researchers report that service personnel are likely to feel the burden of outdated knowledge (Gideon et al., 1999; Kadushin, 2004; Kadushin & Egan, 2001; Madigan & Tullai-McGuinness, 2004; Rushmer & Davies, 2004; Wilson, 1988). The existence of inappropriate knowledge influences the types of organizational learning available to firm members. Inappropriate knowledge causes members to share inappropriate assumptions about inappropriate routines. Furthermore, organizational members may adopt inappropriate approaches to scanning the business environment and may make mistakes when defining, meeting, and bringing ideas to fruition by introducing new services.

In light of the previous arguments, unlearning is an important trigger of a destabilization process in working environments. This process of destabilization and subsequent reconsolidation may be a means by which individuals update or modify established memories (knowledge). For example, unlearning may reveal managerial problems that employees may not want to express directly, such as excessively authoritarian managerial styles, lack of trust, and other dysfunctional aspects of an organization. Importantly, most prior organizational research describes unlearning as the result of some form of old learning's destabilization (Akgun, Lynn, & Byrne, 2006; Lee & Sukoco, 2011). Thus, the appropriateness and effectiveness of the types of organizational learning that service managers perceive depend on their ability and willingness to counteract the negative effects of inappropriate knowledge and combine prior knowledge (with appropriate adjustments for obsolete or inaccurate knowledge) with new knowledge. This leads to the proposition that the creation of an unlearning context in an organization enhances the ability and willingness of managers to engage in these learning activities.

Obviously, knowledge arising in a specific context (e.g., within a unit or department) is not necessarily unsuitable for jobs in different working environments. From this perspective, inappropriate knowledge could reveal potentially useful information about how the service firm and the firm members operate. For example, outdated knowledge is useful for conveying information to others, exerting a social influence, and entertaining (Cegarra & Cepeda, 2010; Cegarra et al., 2011). Outdated knowledge can create doubts about the efficacy and appropriateness of some individuals' mental models regarding organizational culture and organizational routines. In these circumstances, unlearning is an important trigger that destabilizes working environments. This process of destabilization and subsequent reconsolidation may update or modify established memories (knowledge). From this perspective, the existence of an unlearning context apparently provides support for managing an appropriate balance between exploration and exploitation of knowledge.

As in previous research (Carlson, Upton, & Reaman, 2006; Van der Bent, Paauwe, & Williams, 1999), this study attempts to show that for a given organization, knowledge (both external and internal to the organization) requires critical examination because of its potential relevance. As the previous discussion indicates, to obtain an updated view of a new knowledge structure and to understand its effects, managers have to examine the phenomenon from a number of different angles. If managers undiscriminatingly rely on internal knowledge, they are likely to become less creative (Sinkula, Baker, & Noordewier, 1997).

H1. Unlearning has a positive association with exploitation of knowledge.

H2. Unlearning has a positive association with exploration of knowledge.

2.2. Linking types of learning to technology and relational knowledge

T-knowledge may include previous experience on installing and removing peripheral devices, and this experience may later influence the skills that individuals find necessary to operate certain technologies. Nonetheless, activity is what defines relational knowledge's drivers (e.g., trust, shared values, perspectives about business and life, and available time). Likewise, activity establishes and orders the framework where employees use technology (Herschbach, 1995).

A key question is whether the actions of exploring knowledge and exploiting knowledge directly affect relational knowledge and t-knowledge. In this regard, service firms that have developed a strong

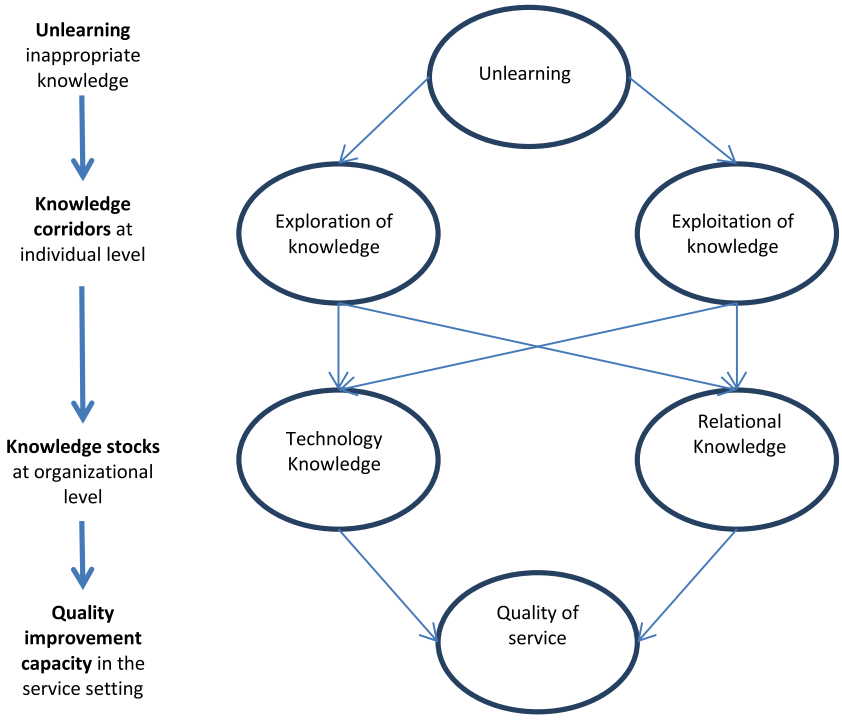


Fig. 1. The proposed research model.

culture may also be good at transferring, transforming, and updating knowledge, as well as modifying behavior to reflect new knowledge and insight (Garvin, 1993; Huber, 1991). From this perspective, organizational members placing emphasis on new knowledge structures (i.e., relational knowledge and t-knowledge) must first acquire information, assimilate this information, and transform this knowledge into new knowledge structures. In addition, exploration and exploitation involve both individual and organizational changes, so questioning the way of modeling the change process is useful. Furthermore, organizational learning may also stimulate knowledge application, which improves the accuracy of answers and customers' knowledge about the service on offer.

Consequently, achieving relational knowledge and t-knowledge requires the cooperation and involvement of the whole organization to make exploration and exploitation the initial steps toward new knowledge structures. Exploration and exploitation are management tools for achieving management goals. Managers, however, are not the only organizational members who need to think about how to achieve these goals or how to function differently.

H3. Exploration of knowledge has a positive association with relational knowledge.

H4. Exploration of knowledge has a positive association with t-knowledge.

H5. Exploitation of knowledge has a positive association with relational knowledge.

H6. Exploitation of knowledge has a positive association with t-knowledge.

2.3. Linking technology and relational knowledge to service quality

A considerable body of literature focuses on the relationship between knowledge and quality of service. In this regard, relational knowledge and t-knowledge are central to service firms' practice (Cepeda-Carrión et al., 2011). When managers possess good relational knowledge, they always choose to maintain a professional rapport with customers, uphold customers' dignity, and respect customers' privacy. Managers with poor relational knowledge, in contrast, have a weaker ability to comprehensively assess clients' circumstances. Thus, customers are more likely to distrust the service and proposed solution, leading to a lower degree of compliance to follow experts' advice. Regarding t-knowledge, this study follows the suggestion of Mort, May, and Williams (2003), who claim that t-knowledge can reduce the duplication of services and overhead costs of providing them.

The above considerations also imply that relational knowledge and t-knowledge allow service firm members to gain a much deeper insight and to make better decisions. Mort et al. (2003) report that t-knowledge helps reduce customers' isolation by facilitating peer contact for both manager consultations and continuing education. For example, when service firm members use a technology system to maintain close relations with customers, they gain a powerful position. They gain such a position because they can exercise some control over data and information that they provide about themselves and they decide whether to engage in the relationship in the first place. Simultaneous, recursive, and joint use of relational knowledge and t-knowledge allows service firm members to deal with customers systematically (Lockamy & Smith, 2009), which in turn leads to better customer service and a higher level of perceived quality (Asubonteng, McCleary, & Swan, 1996).

H7. Relational knowledge has a positive association with perceived quality of service.

H8. T-knowledge has a positive association with perceived quality of service.

3. Methods

3.1. Data collection

The Spanish banking industry is an appropriate context to empirically test the research hypotheses. The banking sector is suitable because

banking activities demonstrate learning capabilities. Banking is a highly knowledge-intensive industry and is therefore appropriate for identifying, analyzing, and evaluating different learning processes. The increasingly intense competition within this industry is forcing banks to seek new ways of leveraging their organizational knowledge. In addition to the competition within the industry, the relative intangibility of their products and services prompts the need to capture and retain customers by offering something extra and building a strong relationship.

The current crisis in the financial services industry is highly significant. Numerous banking takeovers and capitalizations are happening, with the number of company mergers (as a rescue measure, specifically in Spain) multiplying and the volume of crashes increasing. The full extent of this crisis remains unknown because of the unusually high speed at which key events have developed and enormous changes have occurred within a short time span, predominantly following the crash of Lehman Brothers in September 2008. The total number of banks operating in Spain at the time of the study (i.e., 2013) was 15, whereas just three years previously (2010) the sector comprised 110 entities.

Two main reasons led to the choice of the Spanish banking domain as a target for study. First, the necessity for intimacy between service providers (branch office managers) and customers in their commercial relationships is a critical motive for selecting this study sample, especially in Spain. Banking is a trust-based service, and these relationships endure. Second, the banking service is an ideal platform for learning because two or more individuals often work together with different resources and complementary capacities, which are learning facilitator factors (Fenwick, 2007).

The 15 banks met the requirements of the study (i.e., banks serving the public). Data collection followed a snowball sampling method with key respondent methodology, in accordance with the suggestions of an expert panel consisting of 15 eminent academics and 10 general bank managers. The unit of analysis is branch office managers from the 15 banks operating in Spain in 2013. Surveying took place from September 2013 to November 2013. In total, 200 branch office managers received telephone invitations to participate in the study, a process that yielded 152 questionnaires. Two of these questionnaires were unsatisfactory, so they do not appear in the final sample. Analysis therefore draws on data from 150 valid questionnaires.

3.2. Measures

The questionnaire design draws on the previous literature review. The unlearning context construct is a formative second-order construct. Three first-order factors or dimensions assess the unlearning context. These dimensions are consolidation of emergent understandings, the examination of lens fitting, and the framework for changing individual habits. A question that arises when taking a multidimensional approach (i.e., using second-order measures) is whether the model should represent these constructs as reflective or formative indicators. Indeed, understanding the construct's underlying essence, whether reflective (i.e., changes in the underlying construct cause changes in the indicators) or formative (i.e., indicators affect or cause the underlying construct), is an essential first step in modeling its structure (MacKenzie, Podsakoff, & Jarvis, 2005). Consequently, the choice depends primarily on whether researchers view the first-order factors or dimensions as indicators or causes of the second-order factor (Chin, 1998). The study adopts a formative view of this structure for the second-order construct. Thus, an increase in any dimension's level does not imply an increase in other dimensions' levels. The dimensions do not necessarily correlate; consequently, traditional reliability and validity assessments are inappropriate and illogical for a formative second-order factor with reference to its dimensions (Bollen, 1989). The measurement of the other four constructs (i.e., exploration of knowledge, exploitation of knowledge, technology knowledge, and quality of services) uses reflective indicators. Finally, modeling of the relational knowledge construct adopts a reflective second-order construct comprising two dimensions.

This study mainly employs existing scales from the literature. The questionnaire constructs comprise the following concepts. To examine the two constructs of organizational learning (exploration and exploitation of knowledge), the methodology draws on the pre-defined dimensions of absorptive capacity (Zahra & George, 2002). Measurement employs a seven-point Likert scale from the study by Jansen, Van den Bosch, and Volberda (2005). This study works with two dimensions from this scale: acquisition and assimilation of new external knowledge. Six items assess effort intensity and direction in knowledge acquisition. In addition, four items measure exploitation and gauge the extent to which firms are able to analyze and understand new external knowledge. Ultimately, after a data cleansing process, three items form the exploration scale, and three items compose the exploitation scale.

To examine technology knowledge, the methodology draws on the pre-defined dimensions for technology slack (Nohria & Gulati, 1996; Sharma, 2000; Szulanski, 1996). The measurement of items uses a seven-point Likert scale. Technology knowledge consists of four items. Relational knowledge includes transformation and exploitation of knowledge as two reflective dimensions (Zahra & George, 2002). Item measurement uses a seven-point Likert scale from the study by Jansen et al. (2005). Twelve items initially assess how far managers can facilitate recognition of opportunities and consequences of customer knowledge for existing protocols, processes, and policies (Zahra & George, 2002). The scale gauges the managers' ability to incorporate customer knowledge into their operations. The final scale consists of three items for each dimension.

As per the previous discussion, the unlearning context comprises three dimensions: consolidation of emergent understandings, the examination of lens fitting, and the framework for changing individual habits. The measures relating to consolidating emergent understandings consist of six items from a scale by Cegarra and Sanchez (2008), adapted from Akgün, Byrne, Lynn, and Keskin (2007). These items describe the way management faces change, actively introduces change into the company through projects, collaborates with other members of the organization, and recognizes the value of new information or risk taking. The measurement of the examination of lens fitting uses five items. These items recognize the support of policies, rules, reporting, structures, and decision-making protocols that encourage the identification of problems, mistakes, and new ways of doing things. Finally, measurement of the framework for changing individual habits uses seven items. This scale focuses on employees' awareness of their mistakes, ways of thinking, and wrong behaviors in everyday attitudes.

The quality of service scale consists of nine items from Powell (1998). Research shows that quality of service's perceived measures can be a reasonable substitute for objective measures of performance and have a significant correlation with these objective measures (Geringer & Hebert, 1989; Hansen & Wernerfelt, 1989; Venkatraman & Ramanujam, 1987). Although self-report scales receive criticism, subjective scales have their own merits since objective indicators cannot achieve a high level of specificity in terms of industry, time horizon, and conditions in banking services.

3.3. Data analysis

Partial least squares (PLS) is an appropriate data analysis technique for this study because of the model and sample data characteristics. The model uses formative indicators, and data follow a non-normal distribution. Other structural equation modeling techniques (e.g., covariance-based models in LISREL or AMOS) are inapplicable in these circumstances (Diamantopoulos & Winklhofer, 2001). This study uses SmartPLS 2.0 to perform the analysis (Ringle, Wende, & Will, 2005). PLS methodology follows a two-stage approach (Barclay, Higgins, & Thompson, 1995).

Table 1
Factor loadings of reflective constructs.

	Exploration of knowledge	Exploitation of knowledge	Relational knowledge	Quality of service	Technology knowledge	Unlearning
P9_1	**0.80**	0.63	0.47	0.39	0.50	0.52
P9_3	**0.76**	0.33	0.46	0.27	0.39	0.44
P9_5	**0.65**	0.40	0.39	0.23	0.34	0.32
P9_8	0.63	**0.94**	0.60	0.50	0.55	0.61
P9_9	0.61	**0.95**	0.48	0.45	0.47	0.55
P9_10	0.53	**0.94**	0.47	0.39	0.45	0.58
Transformation	0.56	0.51	**0.93**	0.52	0.61	0.56
Link Exploitation	0.54	0.51	**0.93**	0.52	0.59	0.59
P15_1	0.19	0.23	0.31	**0.77**	0.38	0.39
P15_2	0.39	0.39	0.48	**0.78**	0.42	0.38
P15_3	0.21	0.30	0.34	**0.75**	0.39	0.39
P15_5	0.42	0.42	0.49	**0.74**	0.47	0.43
P15_6	0.27	0.35	0.38	**0.72**	0.37	0.44
P15_8	0.28	0.33	0.48	**0.73**	0.44	0.42
P15_9	0.32	0.35	0.46	**0.78**	0.34	0.43
P15_10	0.27	0.37	0.42	**0.78**	0.32	0.52
P15_12	0.34	0.41	0.34	**0.68**	0.25	0.46
P8_1	0.48	0.42	0.58	0.47	**0.91**	0.47
P8_2	0.47	0.48	0.53	0.42	**0.94**	0.47
P8_3	0.51	0.44	0.55	0.40	**0.93**	0.46
P8_4	0.57	0.54	0.65	0.55	**0.87**	0.65
CEU	0.54	0.52	0.60	0.54	0.52	**0.89**
CIH	0.52	0.57	0.51	0.48	0.45	**0.89**
ELF	0.44	0.51	0.48	0.43	0.50	**0.80**

The first step requires assessment of the measurement model. This analysis relates to the attributes of individual item reliability, construct reliability, average variance extracted (AVE), and discriminant validity of latent variable indicators. The second step evaluates the structural model. The objective is to test the consistency of causal relationships in the model with empirical data. The bootstrapping procedure (Chin, 1998) enables testing of research hypotheses.

Analysis of the relationships between the different constructs and their indicators entails applying the latent model perspective, which models the latent variable as the indicators' cause. Indicators are therefore reflective for first-order constructs or dimensions, except for the unlearning context construct, which feeds into the model as a second-order formative construct.

With regard to the measurement model, the first step is to assess individual item reliability (Table 1). All indicators except two (p9_5; p15_12) exceed the threshold of 0.70 for each factor loading (Carmines & Zeller, 1979). Because PLS is a predictive and exploratory technique, however, these indicators' failure to exceed the threshold does not compromise the reliability of this study's measurement model as long as the other reliability scores exceed the threshold (Chin, 1998).

Results in Table 2 imply that all constructs are reliable. Values for both Cronbach's alpha and for composite reliability are greater than 0.7 (required in the early stages of research) and the stricter value of 0.8 (required for basic research) (Nunnally, 1978). The AVE should be greater than 0.5, meaning that the construct accounts for 50% or more of the indicators' variance (Fornell & Larcker, 1981). All constructs in the model exceed this condition (Table 2). A comparison of the AVE's square root (i.e., the diagonal elements in Table 2) with the correlations between constructs (i.e., the off-diagonal elements in Table 2) tests for discriminant validity. On average, each construct relates more strongly to its own measures than to others.

Evaluation of formative dimensions of the high-order construct unlearning context differs from the evaluation of unlearning context's reflective dimensions. The appropriate procedure for formative dimensions is an examination of weights (Mathieson, Peacock, & Chin, 2001), which is a canonical correlation analysis that provides information about how each indicator contributes to its construct (see Table 3). Weights need not exceed any particular benchmark because a census of indicators is necessary for a formative specification (Diamantopoulos & Winklhofer, 2001). The concern with formative dimensions is multicollinearity with overlapping dimensions, which may produce unstable estimates (Mathieson et al., 2001). Results of a collinearity test show that the variance inflation factor (VIF) scores for the second-order construct for three dimensions are below the standard cut-off of 3.3. In addition, data meet Fornell and Larcker's requirements (1981) for testing the formative dimensions' validity.

Table 2
Descriptive statistics and correlation matrix.

	Mean[a]	SD	CR	CA	AVE	1	2	3	4	5	6	7	8	9
1. Exploration of knowledge	5.67	1.21	0.77	0.78	0.55	0.74								
2. Exploitation of knowledge	5.43	1.23	0.96	0.94	0.88	0.63	0.94							
3. Consolidation of emergent u…[b]	5.71	1.31	0.93	0.92	0.74	0.54	0.53	0.86						
4. The framework for changing i…[b]	5.44	1.11	0.96	0.95	0.78	0.52	0.57	0.68	0.88					
5. The examination of lens fitting[b]	6.14	0.91	0.91	0.86	0.67	0.43	0.51	0.53	0.53	0.82				
6. Link exploitation[b]	5.41	1.22	0.86	0.74	0.67	0.55	0.51	0.54	0.52	0.42	0.82			
7. Quality of service	4.76	1.34	0.92	0.91	0.59	0.42	0.47	0.54	0.56	0.41	0.53	0.76		
8. Technology Knowledge	5.25	1.32	0.95	0.94	0.81	0.53	0.53	0.53	0.45	0.50	0.57	0.53	0.90	
9. Transformation[b]	5.38	1.25	0.85	0.73	0.66	0.56	0.52	0.53	0.43	0.48	0.60	0.51	0.62	0.81

[a] Mean = the average score for all of the items included in this measure; SD = standard deviation; CA = Cronbach's alpha; CR = composite reliability; AVE = average variance extracted.

[b] They represent the dimensions of the second-order construct. Diagonal entries are the square root of the average variance extracted. Off-diagonal elements are correlations among constructs.

Table 3
Weights of formative constructs.

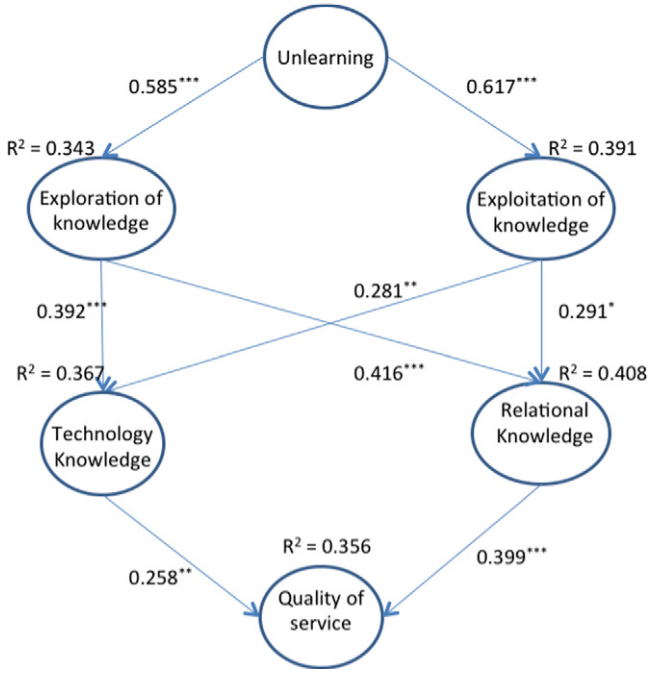
High-order constructs and their dimensions	Weights	Student's *t*
Unlearning context		
Consolidation of emergent understandings (CEU)	0.47	5.79
The examination of lens fitting (ELF)	0.25	3.47
The framework for changing individual habits (CIH)	0.56	6.45

4. Results

Fig. 2 presents a summary of the structural model resulting from the PLS analysis, showing the explained variance of endogenous variables (R^2) and the standardized path coefficients (β). All the relationships in the research hypotheses are significant, thereby supporting the hypotheses. Significance testing and modeling employs traditional parameter-based techniques (Chin, 1998) because PLS makes no distributional assumptions in its parameter estimation. One consequence of the comparison between covariance structural modeling approaches and PLS is that no proper overall goodness-of-fit measures exist for models using PLS (Hulland, 1999). Evaluation of the structural model depends on examining the R^2 values and the size of the structural path coefficients.

The *t* statistics from a bootstrap test with 5000 resamples test the stability of the path coefficient estimates. Table 4 shows model statistics, path coefficients, and *t* values corresponding to the level of significance from the bootstrap test.

Calculating the significance of the indirect path (which goes from the exploration and exploitation constructs to quality of service) provides a means of checking for the presence of indirect effects. This indirect path passes via relational knowledge and technology knowledge. Table 5 shows results of indirect effects and their significance (percentile bootstrap 95% confidence interval). Analysis shows that results support all indirect effects. The fact that all indirect paths are significant means that exploration and exploitation of knowledge have an indirect effect on quality of services through both relational knowledge and technology knowledge.



*p < .05; **p < .01; ***p < .001 (based on t(4999), one-tailed test)

Fig. 2. Estimated causal relationships in the structural model. $^{*}p < .05$; $^{**}p < .01$; $^{***}p < .001$ (based on $t(4999)$, one-tailed test).

Table 4
Model statistics.

Model paths	Path coefficients	*t* values	R^2
Unlearning → Exploration of knowledge	0.585	12.33	0.34
Unlearning → Exploitation of knowledge	0.617	9.79	0.39
Exploration of knowledge → Relational knowledge	0.416	3.88	0.41
Exploration of knowledge → Technology knowledge	0.392	3.66	0.37
Exploitation of knowledge → Relational knowledge	0.291	1.78	0.41
Exploitation of knowledge → Technology Knowledge	0.281	2.79	0.37
Relational knowledge → Quality of service	0.399	4.15	0.36
Technology knowledge → Quality of service	0.258	3.07	0.36

$^{***}p < .001$. $^{**}p < .01$. $^{*}p < .05$. ns = not significant (based on a Student $t(4999)$ distribution with one tail). $t(0.05.\ 4999) = 1.645158499$. $t(0.01.\ 4999) = 2.327094067$. $t(0.001.\ 4999) = 3.091863446$.

Therefore, the results support the model. In other words, all antecedent variables, some of them directly (i.e., relational knowledge and technology knowledge) and others indirectly (i.e., exploration of knowledge and exploitation of knowledge), are the best way to explain the dependent variable variance (i.e., quality of service).

5. Discussion

Through an empirical study of 150 branch offices in the Spanish banking sector, this study examines how an unlearning context can help service firms align technology and relational knowledge. The study untangles the concept of knowledge and organizational learning by illustrating the processes behind the development of an organizational context.

The study's first contribution is to stress that service firms may be investing too heavily in the adoption of knowledge through exploration processes and investing too little in mechanisms to facilitate the unlearning of inappropriate knowledge. Regarding this finding, firms that consider the flow of knowledge creation as a linear process (i.e., unlearning → organizational learning → knowledge stock → knowledge use) can expect to achieve higher levels of quality in their services. Consequently, when establishing banking services, managers should encourage employees to unlearn knowledge rapidly as a first step and use new knowledge structures effectively as a second step.

The second contribution of this study relates to the results of the hypothesis testing. Findings suggest that the two types of learning (i.e., exploration and exploitation) are important, albeit not enough to create technology and relational knowledge. The significant positive association between the unlearning context and the framework for consolidating emergent understandings indicates that managers need to provide critical input to implementing a new technology. Managers should critically appraise proposals to implement new technologies, suggesting solutions and allowing experts to observe and intervene in discussions.

This study has some limitations. First, results provide only a snapshot of ongoing processes rather than measures of the same process over time. Second, although drawing on relevant, valid scales from the literature ensures that the constructs' definition is as precise as possible,

Table 5
Indirect effect statistics.

Indirect effects of exploration and exploitation of knowledge on quality of service	Point estimate	Percentile bootstrap 95% confidence interval	
		Lower	Upper
Exploration-RK-QS	0.166	0.076	0.256
Exploration-TK-QS	0.101	0.019	0.192
Exploitation-RK-QS	0.116	0.009	0.288
Exploitation-TK-QS	0.072	0.007	0.163

RK: relational knowledge; TK: technology knowledge; QS: quality of service.

the constructs can realistically act only as proxies for an underlying latent phenomenon that is itself only partially measurable. Third, the model in this study is general and fails to capture the possible moderating effects of environmental turbulence and uncertainty. Prior research shows that the effect of cognitive factors on individual, group, and organizational performance can vary substantially with environmental conditions.

6. Conclusions

In summary, this study establishes important conclusions about unlearning's role in knowledge creation (organizational learning). The study considers learning forms and knowledge stocks (i.e., technology and relational knowledge) that bank managers generate through their relationships with customers. The results support the view that to create technology and relational knowledge and hence foster the adoption of new practices, banks must build and foster an unlearning context. One interpretation of this relationship is that through the unlearning context, banks allow individuals to adjust their mental models and the nature of the assumptions they share to break with current workplace culture. Managers need to create a context of continuous unlearning because old, outdated knowledge can impede adaptation to new configurations.

The considerations in the previous discussion lead to the argument that technology and relational knowledge allow banking firms to enhance service quality. This finding is important because the potential for any service firm to preserve and maintain the quality of its services greatly depends on its ability to acquire and assimilate new ideas. Managers may therefore find themselves trapped in a suboptimal stable equilibrium. Many overloaded managers may be investing too heavily in the development of technological breakthroughs, while preserving old beliefs and traditions. Results also reveal a positive association between technology creation, relational knowledge, and perceived service quality. New knowledge structures provide support to customer responsiveness and action. Knowledge structures provide support by retaining a broader range of potential responses. Therefore, they allow customers to capitalize on the broad variety that these new knowledge structures offer.

The financial sector, and more specifically the banking industry, is undergoing radical changes that are presenting serious challenges for banks to overcome the current financial crisis. Despite opportunities for the financial (and banking) industry to implement strategic management on the basis of knowledge, very few banks actually demonstrate a willingness to use their technology and relational knowledge. The results of this study should encourage banks to reconsider learning and knowledge, take advantage of these assets, and improve the services they offer their customers.

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Absorptive capacity and value in the banking industry: A multiple mediation model☆

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ABSTRACT

Firms continually look new ways to get the best results. This study focuses on the relationship between absorptive capacity (ACAP) and value, proposing a multiple mediation model to analyze this relationship. The study's contribution to the literature is to examine empirically, and in greater depth the antecedents and determinants of this variable. Thus, the research fills a gap in the literature through the analysis of the mediating role of knowledge stock (KS) and knowledge application (KA). This study applies variance-based structural equation modeling via partial least squares to a sample of 151 branch office managers from the Spanish banking industry. The results show that both the direct effect and indirect effect, through the mediation of KS and KA, are significant in the relationship between ACAP and value.

1. Introduction

The Spanish banking industry (SBI) is a highly knowledge-intensive sector and is therefore appropriate for identifying, analyzing, and evaluating different learning processes. The increasingly intense competition within this industry is forcing banks to recognize the need to seek new ways of leveraging their organizational knowledge. In addition to the competition within the industry, the relative intangibility of their products and services prompts the need to capture and retain customers by offering them something extra, and building a strong relationship.

Furthermore, the complex competitive environment in which banking firms operate leads to an increase in the demand for superior value (Sánchez, Iniesta, & Holbrook, 2009). Therefore, more and more firms see value as a key factor when looking for new ways to achieve and maintain a competitive advantage (Woodruff, 1997).

In this article, a reference to value means the firm's outcomes in relation to their stakeholders (i.e., their internal customers or employees and their external customers). A firm's external and internal organizational capabilities are vital for increasing that value. Thus, a firm should focus on improving those capabilities that view customers (both internal and external ones) as a key component, to maximize and then absorb the value created (Martelo-Landroguez, Barroso, & Cepeda, 2011).

Although most of the literature refers to value creation, understanding value from the perspective of the value of the stakeholders for the firm also receives attention from researchers (Payne & Holt, 2001). This stream of research focuses on the value of the stakeholders for the firm. Therefore, the focus is not only on the creation of value for the stakeholders but also on the value outcome that can derive from delivering superior value by managing knowledge.

In the SBI, new products and processes demand new competencies, or at least a new combination of competencies. These new skills and capabilities are requirements for creating new products or launching new services, and are the likely results of the acquisition, assimilation, and exploitation of new knowledge. This idea is what Cohen and Levinthal (1990) refer to as absorptive capacity (ACAP). These authors state that ACAP is a result of individual skills, prior knowledge, firm-specific competencies (i.e., internal capabilities), and access to knowledge sources outside the firm; that is, external linkages (Leal-Rodríguez, Roldán, Leal, & Ortega-Gutierrez, 2013). Thus, managers need a framework to facilitate the influence of several knowledge management (KM) aspects (e.g., ACAP, knowledge stock — KS, and knowledge application — KA) on the firm's value. Nevertheless, a gap exists in the literature concerning this issue. No study reports an empirical test of the links between ACAP, KM processes, and their consequence on value.

This study addresses the gap in the literature by focusing on the link between a firm's ACAP and value from two different perspectives: researching, on the one hand, the direct effect between ACAP and value; and, on the other hand, the indirect effect considering the multiple mediating role of another two processes of KM: KS and KA. The specific research question is: Does ACAP affect value by itself, or does it need other capabilities in order to jointly facilitate firm's appropriation of the value created?

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2. Theoretical background and research hypotheses

2.1. The relationship between absorptive capacity and value

Cohen and Levinthal (1990, p. 128) initially define ACAP as "the ability of recognizing new external knowledge, assimilating and applying it to commercial ends." Therefore, this concept refers to a key element within the organizational learning process. These authors also suggest that this capability is critical for any firm that seeks the attainment of sustainable competitive advantage, business performance, or innovative results. Cohen and Levinthal (1990) also suggest that ACAP depends largely on the level of prior knowledge that the firm already possesses.

Although extensive literature concerning ACAP exists, this topic only arouses significant interest in the academic community in light of Zahra and George's (2002) reconceptualization. The roots of this reconceptualization lie in the distinction between potential absorptive capacity (PACAP) and realized absorptive capacity (RACAP).

The present work draws on Zahra and George's (2002) view, which suggests that ACAP encompasses four distinct but complementary capabilities: acquisition, assimilation, transformation, and exploitation. According to Barney (1991), the conjunction of different capabilities leads firms to achieve superior performance, which frequently results in competitive advantage.

In accordance with this theory, PACAP and RACAP encompass different capabilities. PACAP involves acquisition and assimilation capabilities. This capacity makes the firm open to the acquisition and assimilation of external knowledge (Lane & Lubatkin, 1998). PACAP captures a firm's capacity to evaluate and acquire external knowledge (mainly from market, competitors, and external customers). Nevertheless, this capacity does not always lead to knowledge exploitation (an internal customer issue or view). Conversely, RACAP deals with the capabilities of transforming and exploiting. PACAP and RACAP are essentially distinct concepts, and consequently may draw on different structures, objectives, and strategies (Leal-Rodríguez, Ariza-Montes, Roldán, & Leal-Millán, 2014).

Jansen, Van den Bosch, and Volberda (2003) develop a new model drawing on a model Van den Bosch, Volberda, and de Boer (1999) propose, and on the inclusion of some of the improvements Zahra and George (2002) provide. On the one hand, three different capabilities – coordination, system, and socialization capabilities – are the antecedents of ACAP in this model. On the other hand, the model of ACAP is an antecedent of the firm's adaptation and performance.

Similarly, several studies posit a relationship between the firm's ACAP and performance. Fiol (1996) argues that the potential of organizations to generate and capture the benefits of their innovation outcomes depends on the previous accumulation of knowledge. The emergence of KM therefore enhances the reciprocity between innovation and knowledge in the sense that innovative efforts are a result of the firm's endeavor and investment in knowledge and knowledge workers. Similarly, outcomes from innovation processes in terms of new products and processes contribute to create new knowledge. They contribute by developing a set of capabilities that extract benefits deriving from value creation (Prajogo & Ahmed, 2006). Ensuring the sharing of relevant knowledge among organizational members is crucial to effectively absorb and exploit knowledge (Spender, 1996). This result provides a better comprehension and mutual understanding (Garvin, 1993).

Several studies propose that the ability to exploit effectively external knowledge is a critical factor for the companies that have an interest in achieving innovation outcomes and higher benefits (Cohen & Levinthal, 1990). A company's ACAP performs as the enabler that permits turning knowledge into new products, services, or processes to support innovation and, therefore, the firm's ability to restrict competitive forces (Leal-Rodríguez et al., 2014; Newey & Zahra, 2009).

According to Damanpour and Gopalakrishnan (2001), innovation is nowadays a crucial element when attempting to obtain and sustain competitive advantages, being product/service innovation a key component of firm's value creation and value appropriation processes. These authors argue that innovative firms tend to be more adaptable to changes, are more flexible, and are more able to exploit opportunities than their competitors are. Firms that foster an innovative approach can deal better with the volatility and high dynamism of their environment, and are thus able to achieve and sustain long-term competitive advantages. In this vein, following the strategy of proactively embracing innovation contributes to differentiating the firm from its competitors, hence improving its business performance and market value (García-Zamora, González-Benito, & Muñoz-Gallego, 2013; Jansen, Van den Bosch, & Volberda, 2006).

This study posits that firms that want to stay in the market place have to consider both internal and external customers. To do so, firms try to provide the marketplace with a range of products or services that give value to these stakeholders. Therefore, superior performance is not an end in itself, but a result from providing superior value to stakeholders (Slater, 1997). By analyzing their customers (internal and external), firms should be able to improve their outcomes.

The literature demonstrates the possibility of viewing value both from the customer's perspective and from the firm's perspective. Some authors focus on perceived value (the customer's perspective), while others focus on value creation and appropriation (the firm's perspective) (Martelo-Landroguez, Barroso, & Cepeda, 2013). This study refers to value as the firm's outcomes in relation to their stakeholders (i.e., the firm's perspective).

However, value creation alone is insufficient to succeed in the marketplace. A firm's ability to restrict competitive forces to enable the appropriation of some of that value that the firm creates in the form of profit is also necessary (Mizik & Jacobson, 2003). Thus, value appropriation involves the development of a set of capabilities to extract benefits that stem from value creation. In other words, value appropriation focuses on the appropriation of market rents that the possession of specific differential resources or capabilities generates (Mocciaro & Battista, 2005). Although most authors focus their attention on the barriers to imitation of competitors, firms must focus on the retention of value in the organization (Bowman & Ambrosini, 2000).

The key idea is to know if firms are able to capture the value that they create for their internal and external customers. Firms that fail to pay enough attention to value appropriation are unlikely to achieve competitive advantages and capture the benefits of their innovations (Mizik & Jacobson, 2003). Mocciaro and Battista (2005) posit that a period must exist in which the firm may pursue value appropriation to seize the fruits of the firm's innovations through an increase in the efficiency of the firm's resource allocation.

Value appropriation focuses on restricting competitive forces and extracting benefits from the marketplace (Han, Kim, & Srivastava, 1998). According to Bowman and Ambrosini (2000), idiosyncratic ways of doing things allow firms to offer more value to their stakeholders, and could help firms to achieve higher benefits.

H1. Absorptive capacity has a positive relation with value.

2.2. KM and value: the mediating roles of knowledge stock, and knowledge application

Scholars broadly discuss the relationship between KM and the value for the internal and external customer (Despres & Chauvel, 1999; Gebert, Geib, Kolbe, & Brenner, 2003; Kaplan & Norton, 2004; Rezgui, 2007). In addition, Vorakulpipat and Rezgui (2008) suggest that a description of knowledge as a source of value creation is possible.

In terms of organizational processes, Gebert et al. (2003) suggest that KM processes have inherent value-creation capabilities. In this context, Vorakulpipat and Rezgui (2008) define KM as a set of processes that allow firms to use what they know to create value for the customers,

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and then create new knowledge from the value-creation process. In the case of KM, the reference is to the internal aspect of the creation of value. Firms carry out a number of internal processes aiming at creating and capturing value from the market. Therefore, these processes are critical to organizational success (Chou, 2005; Van den Hooff & Huysman, 2009). Without them, companies may not take advantage of the knowledge they possess (Ipe, 2003).

Drawing on Cohen and Levinthal (1990), organization ACAP is not only the organization's acquisition of information and knowledge but also the organization's ability to exploit this acquisition. Acquisition capacities and exploitation capacities are therefore path dependent. An organization can exploit new knowledge only if this organization can acquire and stock this knowledge. These capacities become stronger through two complementary KM processes, namely KS and KA.

KS, or knowledge base, stems from the concept of organizational learning, where the firm is a learning system resulting in the accumulation of knowledge. Organizational members possess, acquire, and accumulate knowledge through experimentation, the observation of stimuli, and the interpretation of the results. Ravasi and Verona (2001) point out that a knowledge base always exists in a firm, either as individual or collective knowledge, in firm routines, databases, knowledge bases, intranet, etc. In a sense, some authors assimilate KS to the organizational memory concept, whose definition can be the persistent representation of knowledge and information from the firm's history (Chou, Chang, Cheng, & Tsai, 2007).

According to the knowledge-based view (KBV), a firm's existing knowledge base sets up its scope and ability to understand and apply new knowledge to decision-making, problem-solving, or innovation (Ahuja & Katila, 2001). Knowledge breadth and depth are two distinct dimensions of the KS that reveal both the structure and content of the knowledge a firm holds. Knowledge breadth refers to the extent to which the firm's knowledge repository contains distinct and multiple domains. Knowledge depth concerns the knowledge's level of sophistication and complexity in key fields (Zhou & Li, 2012).

To perform better, firms must fulfill two requirements: a broad knowledge base and deep knowledge base (Leal-Rodríguez et al., 2013). On the one hand, a firm with broad knowledge accumulates expertise across a variety of disciplines and heterogeneous market domains through its extensive knowledge exploration (Prabhu, Chandy, & Ellis, 2005). In addition to knowledge sharing, a broad KS provides the sharing process through which the firm can connect and integrate its broad knowledge. On the other hand, a firm with a knowledge depth is likely to benefit from market and customer knowledge acquisition. This firm with a deep knowledge base and know-how about existing technologies and markets can develop core competencies and firm-absorbing value.

Prior research suggests that in the search process that underlies co-creation innovations, maintaining a balance between depth and breadth is critical to successful innovation (Katila & Ahuja, 2002; Prajogo & Ahmed, 2006). The size and structure of an organization's KS can determine how well this organization manages knowledge resources and creates capacities (Yayavaram & Ahuja, 2008). However, without KA, other processes of KM make little sense because firms generate, acquire, store, and share knowledge to apply that knowledge, and make the company more competitive.

Little research exists on KA. According to Gold, Malhotra, and Segars (2001), authors assume KA, because they do not make KA explicit. For example, Nonaka and Takeuchi (1995) discuss a firm's ability to create knowledge, and they seem to assume that once the firm creates knowledge, the effective application of knowledge takes place.

The basis of the firm's competitive advantage does not reside in knowledge itself but in its application (Alavi & Leidner, 2001). Following Martelo-Landroguez et al. (2011), if an organization wants to capitalize on its knowledge, that organization must understand how the creation, sharing, and application of knowledge occur.

According to Grant (1996), the critical source of competitive advantage is the integration of knowledge and not knowledge itself. The processes through which companies integrate knowledge are fundamental to their ability to create and sustain competitive advantage. In general, a need exists to use organizational knowledge in a company's processes, products, and services. If a company cannot easily find the adequate knowledge in the right way, this company struggles to maintain its competitive advantage (Bhatt, 2001).

One of the more common ways of KA is to adopt the best practices of a company leader, to find the relevant knowledge, and apply this knowledge (O'Dell & Grayson, 1998). KA implies the use of knowledge that the ACAP phase generates, and that the stock and transfer phase preserves and shares. Therefore, KA involves the internalization of knowledge in the company.

From the KA process, the organization can receive feedback if the firm needs that knowledge, or if the circumstances of the environment change in such a way that the ACAP process becomes obsolete and needs renovating.

Thus, this study argues that KS and KA processes have positive mediation effects in the ACAP–Value relationship:

H2. Knowledge stock positively mediates the relation between absorptive capacity and value.

H3. Knowledge application positively mediates the relation between absorptive capacity and value.

H4. Knowledge stock and knowledge application sequentially mediate the relationship between absorptive capacity and value.

3. Method

3.1. Data collection and sample

The Spanish banking industry provides an appropriate context to test empirically the above research hypotheses because banking activities demonstrate learning capabilities.

Two main reasons prompt the choice of the Spanish banking domain as a target for study: first, the necessity for intimacy between service providers (managers in the branch office) and customers in their commercial relationships. Banking is a trust-based service, and these relationships tend to endure for long periods. Second, the banking service is an ideal platform for learning because two or more individuals often work together with different resources and complementary capacities. These issues are learning facilitator factors (Fenwick, 2007).

Only 15 banks meet the study's requirements (i.e., banks serving the general public). Data collection follows a snowball sampling method with key respondent methodology, in accordance with the suggestions of an expert panel consisting of 15 eminent academics and 10 general bank managers. The unit of analysis is branch-office managers from the 15 banks operating in Spain in 2013. Surveying took place over a period of two months, from September 2013 to November 2013. In total, 307 branch-office managers received telephone and mailing invitations to participate in the study, a process that yields a total of 153 questionnaires. Two of these questionnaires were unsatisfactory and therefore do not appear in the final sample. Analysis therefore relies on the data from 151 valid questionnaires (49.18% response rate).

3.2. Measures

The foundations of the survey design are in the theoretical review in Section 2. This study uses and adapts scales from previous studies in which the items and responses appear on a seven-point Likert scale ranging from 1: “I completely disagree” to 7: “I completely agree.”

To assess ACAP, this study adapts the scale (eight items to measure PACAP and seven items to measure RACAP) from the Jansen, Van den

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Bosch, and Volberda's (2005) study. Building on the previous works of Chou et al. (2007), four items to measure organizational memory make up the scale for KS. For the KA variable, this study relies on the ten-item scale of Gold et al. (2001). Finally, because of the conceptual difficulty of the variable *value* and that a specific scale to measure this variable does not exist, this study adapts a scale that measures effectiveness. Effectiveness and value are constructs that closely relate in the literature (Garriga, 2014; Gong, 2011). Thus, considering effectiveness as a proxy of the value variable is possible. For this reason, the scale to measure value comprises twelve reflective items from Quinn and Rohrbaugh (1983). Research shows that perceived measures of effectiveness can be a reasonable substitute for objective measures of performance and have a significant correlation with them (e.g. Geringer & Hebert, 1989, Venkatraman & Ramanujam, 1987).

3.3. Data analysis

To test the research model and hypotheses, this study relies on the use of the partial least squares (PLS) technique, a variance-based structural equation modeling (SEM) method. PLS is an appropriate technique for this study due to the following (Roldán & Sánchez-Franco, 2012): (1) the sample ($n = 151$) is small; (2) the focus of the study is the prediction of the dependent variables; (3) the research model is considerably complex according to the type of relationships in the hypotheses; and (4) this study uses latent variables' scores in the following analysis of predictive relevance. This study uses SmartPLS 3.0 software (Ringle, Wende, & Becker, 2014) for the PLS analysis.

4. Results

Two phases comprise the analysis and interpretation in a PLS model: (1) the assessment of the reliability and validity of the measurement model, and (2) the evaluation of the structural model.

4.1. Measurement model

The results show that the measurement model meets all common requirements. First, individual items are reliable because all standardized loadings are greater than 0.7 (Table 1). Second, because all composite reliabilities and Cronbach's α's are greater than 0.7 (Table 2), the model satisfies the prerequisite of construct reliability. In addition, the scores for average variance extracted (AVE) surpass the threshold of 0.5 (Table 2). Consequently, these latent variables achieve convergent validity.

Finally, all variables attain discriminant validity. Confirmation of this validity comes from both the comparison of the square root of AVE versus correlations (Table 2), and the cross-loadings analysis (Table 1) (Roldán & Sánchez-Franco, 2012).

Table 1
Loadings and cross-loadings for the measurement model.

	ACAP	Value	KA	KS
PACAP	0.96	0.68	0.76	0.59
RACAP	0.96	0.73	0.78	0.61
VAL1	0.62	0.82	0.60	0.43
VAL2	0.65	0.87	0.65	0.48
VAL3	0.63	0.84	0.58	0.40
VAL4	0.59	0.80	0.59	0.37
VAL5	0.65	0.87	0.67	0.50
VAL6	0.60	0.86	0.60	0.38
VAL7	0.58	0.83	0.61	0.42
VAL8	0.53	0.80	0.58	0.38
VAL9	0.56	0.81	0.61	0.47
VAL10	0.65	0.84	0.66	0.55
VAL11	0.54	0.71	0.58	0.46
VAL12	0.65	0.84	0.63	0.51
APK1	0.65	0.68	0.81	0.58
APK2	0.72	0.66	0.91	0.63
APK3	0.76	0.73	0.93	0.61
APK4	0.66	0.64	0.86	0.53
APK5	0.67	0.64	0.88	0.54
APK6	0.71	0.66	0.89	0.56
APK7	0.73	0.64	0.89	0.62
APK8	0.61	0.49	0.78	0.50
APK9	0.76	0.64	0.88	0.58
APK10	0.74	0.71	0.90	0.61
STK1	0.70	0.62	0.73	0.86
STK2	0.35	0.30	0.38	0.79
STK3	0.54	0.44	0.55	0.89
STK4	0.46	0.42	0.51	0.91

4.2. Structural model

As Henseler, Ringle, and Sinkovics (2009) comment, the use of bootstrapping (5000 resamples) produces standard errors and t-statistics to assess the statistical significance of the path coefficients. Concurrently, calculation of the bootstrapping confidence intervals of standardized regression coefficients forms part of the analysis. All the direct effects in Fig. 1 are significant, with the exception of b_1 (KS on value). The percentile bootstraps at a 95% confidence interval and bias-corrected confidence interval also have this outcome (Table 3). These results support H1.

In addition, the results confirm that the structural model has satisfactory predictive relevance for the value variable ($Q^2 = 0.40$). Tests on the mediation hypotheses (H2, H3, and H4) use an application of the analytical approach that Hayes, Preacher, and Myers (2011) describe.

Fig. 1a shows the total effect (c) of ACAP on value. Fig. 1b indicates the total effect of ACAP on value as the sum of the direct (c') and indirect effects ($a_1b_1 + a_2b_2 + a_1a_3b_2$). The estimation of the latter uses the product of the path coefficients for each of the paths in the mediational chain.

The use of bootstrapping allows for the testing of the mediation hypotheses (Preacher & Hayes, 2008). This study's 5000 resamples generate 95% confidence intervals (percentile) and bias-corrected confidence intervals for the mediators.

As Fig. 1a and Table 4 show, ACAP has a significant total effect on value ($c = 0.74$; $t = 16.46$). When adding the mediators (Fig. 1b), ACAP decreases its influence, but maintains a significant direct effect on value (H1: $c' = 0.39$; $t = 3.95$). Therefore, this result supports H1.The results also show a partial mediation between ACAP and value because the indirect effects of H3 and H4 are significant. However, they fail to support H2 (Table 4).

5. Discussion

Through an empirical study of 151 branch offices in the Spanish banking industry, this study examines the relationship between ACAP and value for the internal and external customer. Specifically, the analysis focuses on the relationship between ACAP and value with the mediating effects of KS, KA, and the sequential effect of KS and KA.

The study's first contribution is to deepen into the relationships between some KM processes and value for the internal and external customer but from the perspective of the value outcome that can

Table 2
Construct reliability, convergent and discriminant validity coefficients.

	Mean	SD	CR	CA	AVE	ACAP	Value	KA	KS
ACAP	4.45	1.12	0.96	0.91	0.92	0.96			
Value	5.28	1.26	0.96	0.96	0.68	0.73	0.82		
KA	5.11	1.08	0.97	0.96	0.76	0.80	0.74	0.87	
KS	4.47	1.02	0.92	0.89	0.75	0.63	0.54	0.66	0.86

Notes: Mean = the average score for all of the items included in this measure; S.D. = standard deviation; CA = Cronbach's α; CR = composite reliability; AVE = average variance extracted. Diagonal entries are the square root of the average variance extracted. Off-diagonal elements are correlations among constructs.

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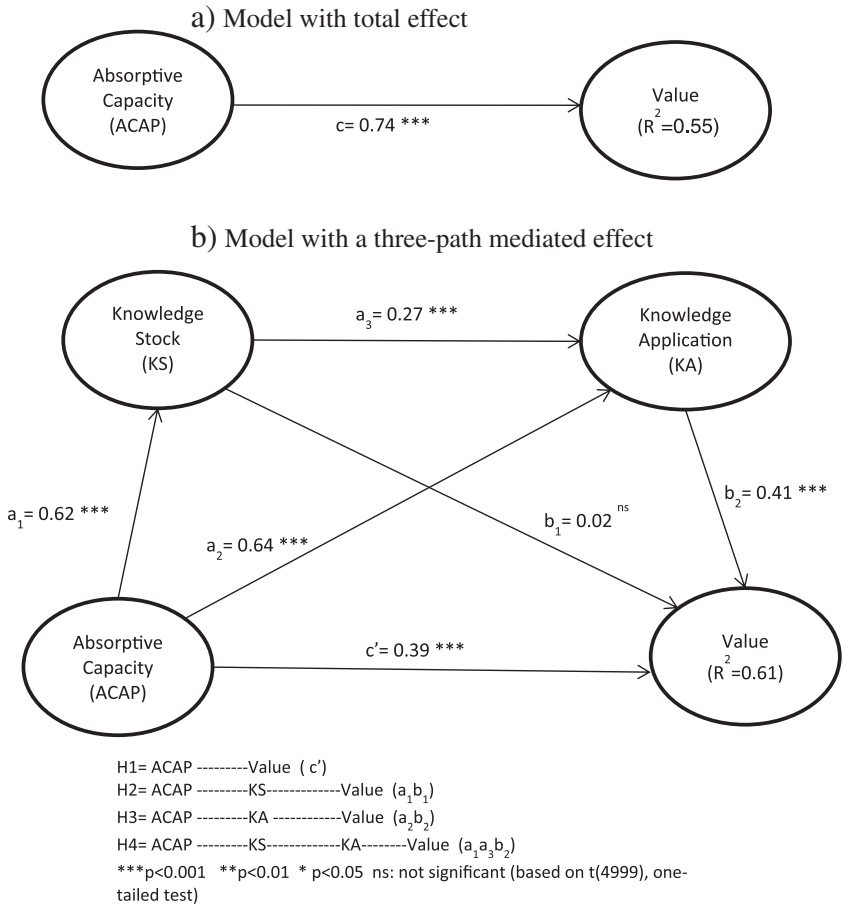

Fig. 1. Structural model

derive from delivering superior value resulting from managing knowledge (i.e., considering the value as appropriation or capture). The approach herein is to place ACAP at the beginning of the process, as a main antecedent of value, while KS and KA play mediating roles between ACAP and value. The results show that KA, to a greater extent, and KS, to a lesser extent, partially mediate the effect of the knowledge absorption capacities on value.

Banks traditionally center their efforts on improving ACAP levels in order to achieve the appropriation of the value. The results of the model with only the total effect (Fig. 1a) indicate that the greater the ACAP level, the greater the value these firms achieve ($R^2 = 0.55$). The ACAP, by itself, gives rise to an increase of the value, as the study shows in the value of $c' = 0.39$, which is positive and significant. This result supports H1, and corroborates the idea that ACAP continues to be a fundamental target for financial firms.

As a second contribution, this study finds a way for managers to achieve better outcomes for banks through the capture and creation of value from the joint development of the absorption systems, storage, and application of knowledge. The structural model shows that the positive effect that ACAP has in the generation of KS does not lead to a significant effect in the increase of value (H2 $= a_1b_1 =$ 0.01 ns). However, to the extent that KS causes greater KA, a multiple mediation effect takes place through these two variables—KS and KA (H4 $= a_1a_3b_2 = 0.07$). Finally, the most important indirect effect that this study detects is that which occurs via KA. Thus, when ACAP gives rise to KA, this KA generates a significant increase in value (H3 $= a_2b_2 = 0.26$).

In summary, the fact that a storing of the absorbed knowledge occurs and this knowledge increases the firm's knowledge base is not, by itself, a value increase (Alavi & Leidner, 2001; Cohen & Levinthal, 1990). H2 reflects this effect, showing that if firms store and do not apply the knowledge, then there isn't a superior value appropriation of the value created (Jiménez-Jiménez & Sanz-Valle, 2011).

Table 3
Construct effects on endogenous variables.

Effects on endogenous variables	Direct effect	*t*-Value (bootstrap)	Confidence intervals (percentile 95%)	Confidence intervals (bias corrected)	Explained variance
ACAP → Value (c')	0.39***	3.95	(0.22:0.53) sig	(0.22:0.53) sig	30.55%
ACAP → KA (a_2)	0.63***	10.72	(0.53:0.73) sig	(0.53:0.72) sig	51.00%
ACAP → KS (a_1)	0.63***	12.31	(0.54:0.71) sig	(0.54:0.71) sig	39.20%
KA → Value (b_2)	0.41***	3.92	(0.24:0.60) sig	(0.24:0.59) sig	28.85%
KS → Value (b_1)	0.03ns	0.44	(−0.07:0.12) nsig	(−0.07:0.11) nsig	1.52%
KS → KA (a_3)	0.26***	3.98	(0.16:0.38) sig	(0.15:0.37) sig	17.70%

Value variable: Q^2: 0.402
*** $p < 0.001$, ns: not significant (based on $t(4999)$, one-tailed test) sig: denotes a significant direct effect at 0.05; nsig. denotes a not significant direct effect at 0.05.

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Table 4
Summary of mediating effect tests.

		Coefficient	*t*-Value
Total effect of ACAP on VAL(c)		0.74*	16.46
Direct effect of ACAP on VALH1(c')		0.39*	3.95
Indirect effects of ACAP on VAL	Point estimate	Percentile 95% confidence interval	Percentile 95% confidence interval bias corrected
H2 = a_1b_1	0.01	(−0.036:0.08) ns	(−0.038:0.08) ns
H3 = a_2b_2	0.26	(0.13:0.44) sig	(0.13:0.43) sig
H4 = $a_1a_3b_2$	0.07	(0.02:0.16) sig	(0.02:0.15) sig
Total	0.35	(0.11:0.68) sig	(0.11:0.67) sig

sig: significant effect; ns: not significant.
* $p < 0.001$ (based on $t(4999)$, one-tailed test).

6. Conclusions and limitations

This study focuses on the effect of the critical processes of KM in value. This study considers value as the firm's outcomes in relation to their internal and external customers. Value is a topic of increasing interest for firms, because all the companies wish to find out ways to increase the creation and appropriation of value.

The study shows that ACAP is an antecedent of value, and KS and KA play a mediating role with different results. The results support that ACAP affects value directly and indirectly through KA, and through the multiple effect of KS and KA, but not through the mediating role of KS. Therefore, firms have to apply the knowledge they absorb to achieve a superior value. If firms store but do not apply the knowledge, they cannot achieve a superior value.

This topic is very interesting and useful for managers. They must understand that information systems and business-intelligence systems must capture information and knowledge for its application within the firms, and they should consider knowledge in decision-making processes.

This study has some limitations. First, results offer only a snapshot of current processes instead of measures of the same process over time. Second, although drawing on relevant, useable scales from the literature guarantees that the constructs' definition is as precise as possible, the constructs can credibly act only as proxies for an underlying latent phenomenon, which is itself only partially measurable. Third, the model in this study is general and fails to capture the possible moderating effects of environmental turbulence and uncertainty. Prior research shows that the effect of cognitive factors on individual, group, and organizational performance can vary substantially with environmental conditions. Fourth, the cross-sectional (rather than longitudinal) design of the study might misrepresent variables that refer to lengthy processes, the effects of which only become apparent over long periods. Finally, this study takes place in a specific geographical context (Spain) and economic sector (the banking industry); for this reason, researchers must be careful about generalizing these results and conclusions to other scenarios or different contexts.

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D. Tony Crespo Franco, Catedrático de Escuela Universitaria del Área de Organización de Empresas de la Universidad de Vigo, en calidad de CoEditor de la Revista Investigaciones Europeas de Dirección y Economía de la Empresa,

HACE CONSTAR:

Que, de acuerdo con los informes recibidos de los evaluadores anónimos a los que ha sido remitido, el comité editorial de Investigaciones Europeas de Dirección y Economía de la Empresa (ISSN 1135-2523), ha decidido aceptar para su publicación en un próximo número de la revista el trabajo elaborado por los profesores de las Universidades de Sevilla y Loyola Andalucía: Ignacio Cepeda-Carrion, Silvia Martelo-Landroguez, Antonio L. Leal-Rodríguez y Antonio Leal-Millán, titulado "CRITICAL PROCESSES OF KNOWLEDGE MANAGEMENT: AN APPROACH TOWARD THE CREATION OF CUSTOMER VALUE" (Ref. IEDEE-D-15-00042).

Y para que así conste, se expide el presente en Vigo, a 29 de enero de 2016.

Fdo. Tony Crespo Franco
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