

**Einsatz von Data Mining in der verhaltenswissenschaftlichen  
Marketingforschung – Theoretische Herleitung und empirische Bestimmung  
der kausalanalytischen Wirkungsbeziehungen von Brand Heritage auf  
zentrale Markenkonstrukte für ein wissensgetriebenes Markenmanagement**

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## **Zusammenfassung**

Die kumulative Dissertation setzt sich aus insgesamt sieben Beiträgen zusammen. Zentrale Zielsetzung und Motivation der vorliegenden Sammlung an Forschungsbeiträgen ist es, einen erkenntnisleitenden Beitrag zur Wirkung der Markentradition auf zentrale Marken- und Verhaltenskonstrukte unter dem Einsatz von kausalanalytischen Methoden des Data Mining zu leisten.

Der positive Einfluss der Markentradition auf den Markenwert als zentrale Controlling- und Steuerungsgröße des Markenmanagements wird offenkundig von immer mehr Unternehmen und Beratungsagenturen anerkannt, wie aus der verstärkten Akzentuierung von Traditionsaspekten in der Markenkommunikation und -inszenierung der letzten Jahre direkt abgeleitet werden kann. Trotz der unternehmensseitigen Anerkennung als immaterieller Werttreiber ist sowohl ein managementorientiertes Mess- und Steuerungsmodell der Markentradition im Allgemeinen als auch eine ganzheitliche Darstellung der Wirkungszusammenhänge auf relevante Markenkonstrukte und das Kundenverhalten im Besonderen weder in der Marketingpraxis noch in der Marketingwissenschaft bis dato zu identifizieren. Im Kontext dieser theoretischen, empirischen und methodischen Forschungslücke sind die zentralen Forschungsziele der Arbeit, a) den Mehrwert von Methoden des Data Minings für marketingrelevante Problemstellungen aufzuzeigen, b) ein fundiertes multidimensionales Erfolgstreibermodells der Markentradition theoretisch herzuleiten und unter Anwendung von Methoden des Data Minings empirisch zu überprüfen sowie c) ein praxistaugliches Markensteuerungscockpit auf Basis einer Partial Least Squares (PLS) Pfadmodellierung zur konkreten Identifikation von Optimierungsfeldern zu konzipieren. Auf Basis von PLS-Pfadmodellierungen zeigten sich in allen Studien von der Markentradition ausgehend positive Wirkungseinflüsse auf zentrale und etablierte Konstrukte des Marketings, wie z.B. Reputation, Markenimage und Kaufabsicht, oder aber auch Kundennutzen und Luxuswahrnehmung. Zukünftige Forschungsarbeiten sollten besonders Methoden und Erkenntnisse der Neuroökonomie berücksichtigen und das in den methodischen Arbeiten vorgestellte Messmodell der Markentradition um eine implizite Wirkungsebene erweitern.

## **Schlagwörter:**

Strukturgleichungsmodelle, Partial Least Squares, Markentradition

## **Abstract**

This doctoral thesis includes seven publications. The main aim and motivation of this present compilation of research studies is to achieve a contribution in examining the impact upon brand heritage on well established brand and behavior constructs using causal data mining techniques.

Obviously, the positive effect of brand heritage on brand equity as one of the essential controlling and key performance indicator for a value-oriented brand management is accepted by an increasing number of companies as well as consulting agencies, which can be derived from an intensified emphasis of brand heritage relevant facets within the brand communication over recent years. Despite this acknowledgment of brand heritage as an intangible value driver for companies, an integrated measurement and controlling instrument of brand heritage in general as well as a description of cause-effect relationships on key brand and behavior constructs cannot be identified neither in marketing practice nor in marketing science to date. In the context of this theoretical, empirical and methodological research gaps, the central research objectives of this paper compilation are a) to demonstrate the added value of data mining techniques for marketing-relevant problems, b) to derive theoretically and to examine empirically a well-founded multidimensional success driver model of brand heritage using data mining and c) to design a brand performance cockpit using Partial Least Squares (PLS) path modeling to identify improvement areas with focus on brand perception. In all studies, the empirical results based on PLS structural equation modeling suggests a positive effect on essential and established marketing constructs, e.g., reputation, brand image and buying intention as well as customer perceived value and brand luxury. Further research should especially concentrate on current methods and findings of neuroeconomic research with respect to extend the presented measurement model regarding implicit perceptual and behavioural processes.

## **Key words:**

Structural Equation Modeling, Partial Least Squares, Brand Heritage

*“Learn from yesterday, live for today, hope for tomorrow.*

*The important thing is not to stop questioning.”*

Albert Einstein (deutscher Physiker, 1879-1955)

## **1. Relevanz, Motivation und Zielsetzung**

Ein zentrales Charakteristikum menschlichen Verhaltens ist das inhärente Bedürfnis nach Struktur und Halt im Leben (vgl. Reiss/Havercamp 1998). Das Verlangen nach geordneten Verhältnissen verstärkte sich massiv in den letzten Jahrzehnten aufgrund von unterschiedlichen und (zumindest) gefühlt immer häufiger auftretenden Wandelprozessen, die sich alle durch einen tiefgreifenden Einfluss auf das gesellschaftliche Leben kennzeichnen lassen. Zu nennen sind beispielhaft die Beendigung des Kalten Krieges und Öffnung des ehemaligen Ostblocks, die Internationalisierung und Dezentralisierung der Wirtschaft, die Asien-Krise, die Dotcom-Blase, das Aufkommen eines globalen Terrorismus, die anhaltende Diskussion um eine eventuelle Erwärmung des Klimas und die zunehmende Verbreitung des Internets. Dabei hat sich insbesondere seit dem Ausbruch der weltweiten Finanz- und Wirtschaftskrise in 2008 bei vielen Menschen in den hoch entwickelten Industriestaaten ein anhaltendes Gefühl der Hilflosigkeit und Ohnmacht eingestellt. Das Ausmaß und die Schnelligkeit, mit der sich die Krise für viele (nicht eingeweihte Experten) *„scheinbar aus dem Nichts“* ausgebreitet hat und (trotz zwischenzeitigem Aufschwung) bis heute anhält, hat viele Menschen nicht nur in die Armut getrieben oder zumindest große (Volks-) Vermögen vernichtet. Eine derartig langanhaltende Krise sorgt bei vielen auch, neben Politik- und Demokratieverdruss, schon fast für die Empfindung eines chronisch gewordenen Sicherheitsmangels *„wo nichts mehr sicher ist außer Unsicherheit“*.

Hinzu kommt, dass die *„rasende Moderne“* des 20. und 21. Jahrhunderts mit der zunehmenden digitalen Vernetzung des alltäglichen Lebens, wo scheinbar jeder 24/7 zu erreichen ist (oder augenscheinlich sein sollte), noch an reiner Beschleunigung zugenommen hat (vgl. Rosa 2005). Im Ergebnis hatten die Menschen in den Industrieländern noch nie so viele Möglichkeiten wie heute, ihr Leben beruflich und privat auf vielfältige Weise lebenswert zu gestalten. Zugleich hat sich in den westlichen Gesellschaften ein Gefühl breit gemacht, im gleichen Zeitraum immer mehr zu schaffen sowie erleben bzw. konsumieren zu müssen, vor allem weil alles aufgrund der hohen Lebensgeschwindigkeit schnell vergänglich wirkt. So ist z.B. mittlerweile jede neue Produktinnovation mehr oder weniger sofort passé und die

nächste steht an, bevor die alte überhaupt richtig verstanden und erlebt worden ist. Ebenso werden die Lebensbiographien immer flexibler und weniger geradlinig, insbesondere andauernde Beziehungs- und Berufsverhältnisse betreffend (vgl. Sennett 2006). Die insgesamt instabiler gewordenen Lebens- und Umweltverhältnisse führen zu einer zunehmenden Verwirrung, Desillusion und Überforderung vieler Menschen, was sich unter anderem in einer stark ansteigenden Zahl an psychischen Erkrankungen negativ niederschlägt (vgl. Wittchen et al. 2011). Dabei sind erste Trends als Gegenbewegungen zu erkennen, wie z.B.: Nehmen eines Sabbaticals, Verzicht auf Gehalt und Konsum, Schaffen von Freiräumen durch eine bewusste Reduzierung der (mobilen) Erreichbarkeit, das Erleben von authentischen anstatt virtuellen Erfahrungen (vgl. von Thadden 2011). In Einklang mit diesen Trendentwicklungen attestiert die empirische Sozialforschung ein erhöhtes Bedürfnis nach Geborgenheit und Kontinuität (vgl. Buß 2006).

Vor dem bisher skizzierten Hintergrund ist es nicht besonders verwunderlich, dass gerade in turbulenten und dynamischen Zeiten wie der heutigen, Marken mit einer Tradition von den Kunden bevorzugt werden, die also ein geschichtliches Erbe vorweisen können, im Englischen als *Heritage* bezeichnet (vgl. Brown 2006). Diese Marken strahlen in erster Linie Zuverlässigkeit und Vertrauen aus, womit sie die Sicherheits- und Ordnungsmotive der Kunden stimulieren. Der Rückgriff auf solche Marken zur Bedürfnisbefriedigung bietet den Kunden einen schützenden Rahmen bzw. eine Art sicheren Rückzugsraum, was im Kontrast zur eher volatilen Umwelt steht. Einer Studie der BBDO Consulting aus dem Jahre 2005 zufolge stellt die Markentradiation speziell in der Automobilbranche, aber auch in der innovationsgetriebenen Mobilfunkgeräte- und Unterhaltungselektronikbranche einen zentralen Markenswertreiber dar, der sich u.a. in einer höherer Kauf- und Preisbereitschaft niederschlagen kann (vgl. Bauer et al. 2004).

Der positive Einfluss der Markentradiation auf den Markenswert als zentrale Controlling- und Steuerungsgröße des Markenmanagements wird offensichtlich von immer mehr Unternehmen (und Beratungsagenturen) anerkannt, wie aus der verstärkten Akzentuierung von Traditionsaspekten in der Markenkommunikation und -inszenierung der letzten Jahre direkt abgeleitet werden kann. So eröffneten mit BMW, Mercedes Benz, Audi und Porsche sämtliche deutsche Premium-Automobilhersteller in den letzten Jahren seit 2005 eigene Markenmuseen zur Demonstration und Pflege ihrer traditionsreichen Ingenieurskünste. Andere Unternehmen wiederum heben ihre lange Geschichte und Erfahrung in Subclaims hervor, wie z.B.

MAN mit „*Engineering the Future – since 1758*“, der Fahrradreifenbereich der Continental AG mit „*deutsche Technik seit 1871*“ oder Apollinaris mit „*Inspiziert Menschen seit 1852*“.

Gemein ist diesen Unternehmen, dass sie offensichtlich die identitätsstiftende Funktion der Markentradition und die damit verbundenen innen- (z.B. Mitarbeiter) als auch außengerichteten (z.B. Kunden, Anteilseigner etc.) Orientierungs- sowie Wertschöpfungspotentiale erkannt haben (vgl. Herbrand/Röhrig 2006). Je positiver die Identitätswahrnehmung dabei ist, desto höher fällt die Markenstärke aus. Zusätzlich bildet die Tradition ein substanzielles Fundament für die Reputation und das Image, zwei wesentliche Erfolgsfaktoren in einer Zeit, in der die Basis- und Leistungseigenschaften von Produkten weitgehend homogenisiert sind. Vor dem Hintergrund, dass die Tradition einer Marke auf ihrer individuellen Geschichte basiert, bildet sie letzten Endes das einzig wahre Differenzierungsmerkmal und eine nicht zu kopierende Ressource im markengetriebenen Wettbewerb der Aufmerksamkeitsökonomie. Anders als junge Marken haben traditionsreiche Marken den besonderen (Positionierungs-) Vorteil, eine authentische Leistungskompetenz zu besitzen (vgl. Diez 2006).

Trotz der aufgezeigten unternehmensseitigen Anerkennung als (immaterieller) Werttreiber ist sowohl ein managementorientiertes Mess- und Steuerungsmodell der Markentradition im Allgemeinen als auch eine ganzheitliche Darstellung der Wirkungszusammenhänge auf relevante Markenkonstrukte und das Kundenverhalten im Besonderen weder in der Marketingpraxis noch in der Marketingwissenschaft bis dato zu identifizieren. Dies ist vor allem vor dem Hintergrund erstaunlich, dass in den letzten Jahren mit der Verbreitung leistungsstarker Analysetechniken des Data Mining eine vergleichsweise einfache Bestimmung von Erfolgsfaktoren möglich ist. Hierbei haben sich Partial Least Squares (PLS), neben den etwas anspruchsvolleren und deshalb weniger verbreiteten Künstlichen Neuronalen Netzen (KNN), in der Marketingforschung als besonders geeignete kausalanalytische Methode hervorgerufen (Huber et al. 2007). Neben der allgemeinen Datenrobustheit ist besonders die Fähigkeit von PLS vorteilhaft, auch komplexeste Modellkonzeptionen mit einer Vielzahl an Untersuchungskonstrukten (latente Variablen) und Indikatoren (manifeste Variablen) selbst bei geringer Datenbasis untersuchen zu können. Gerade wenn die Forschung zu einem Untersuchungsgegenstand wenig oder gar nicht elaboriert ist, also z.B. nur wenige oder überhaupt keine Erkenntnisse zu den Wirkungsbeziehungen in einem Untersuchungsmodell vorhanden sind, sind varianzbasierte Verfahren wie PLS bedingt durch ihre Charakteristika besonders geeig-

net. Auf analytisch-explorativem Wege lässt sich mit Hilfe von PLS eine Prognose der Zusammenhänge durchführen, um hierüber ein geeignetes Theoriefundament zu erstellen.

Aus den skizzierten Darstellungen und der identifizierten theoretischen, empirischen und methodischen Forschungslücke leitet sich die direkte Motivation der vorliegenden Sammlung an Forschungsbeiträgen ab: Einen erkenntnisleitenden Beitrag zur Wirkung der Markentradiation auf zentrale Marken- und Verhaltenskonstrukte unter dem Einsatz von kausalanalytischen Methoden des Data Mining zu leisten. Die Arbeiten selber sind dabei dem Ansatz einer verhaltenswissenschaftlichen Fundierung des Marketings im Allgemeinen und der Marketingforschung im Besonderen zuzuordnen (vgl. vertiefend Wiedmann 2004). Konkret sollen die folgenden Fragen beantwortet werden:

- Welchen Mehrwert bieten welche Methoden des Data Mining für spezifische Problemstellungen?
- Aus welchen managementorientierten Facetten setzt sich die Markentradiation als multidimensionales Konstrukt zusammen?
- In welchem Ursache-Wirkungs-Verhältnis steht die Markentradiation in Bezug auf zentrale und etablierte Marken- und Verhaltenskonstrukte?
- Wie kann die Integration von Techniken des Data Mining zur Analyse der umfassenden Traditionseffekte einer Marke im Rahmen eines wissensgetriebenen Markenmanagements in der Marketingpraxis konkret aussehen?

Zur Beantwortung der aufgestellten Fragen werden die folgenden Ziele verfolgt:

- Allgemeine Skizzierung des effizienten und effektiven Einsatzes von Methoden des Data Mining zur Lösung realer Problemstellungen im Marketingmanagement
- Entwicklung eines multidimensionalen Erfolgstreibermodells der Markentradiation
- Durchführung von inhaltlich aufeinander aufbauenden, empirischen Analysen zur sukzessiven Identifikation der kausalen Wirkungsbeziehungen zwischen Markentradiation und relevanten Marken- und Verhaltenskonstrukten
- Konzeption eines ganzheitlichen *Brand Performance Cockpits* auf Basis einer kausalanalytischen PLS-Analyse zur Bestimmung der kundengruppenbezogenen Wirkungseffekte von Markentradiation und weiteren relevanten Marken- und Verhaltenskonstrukten sowie zur Ableitung konkreter Handlungsempfehlungen

Die aufgestellten Forschungsfragen und –ziele werden in den einzelnen Forschungsbeiträgen angegangen, die im folgenden Abschnitt kurz erläutert werden sollen.



*"It seems, in fact, as though the second half of a man's life is made up of nothing,  
but the habits he has accumulated during the first half."*

Fjodor Michailowitsch Dostojewski (russischer Schriftsteller, 1821-1881)

## **2. Einordnung und Darstellung der Data Mining getriebenen Forschungsbeiträge**

Insgesamt wurden sieben Forschungsarbeiten durchgeführt, um die im vorangegangenen Kapitel aufgestellten Forschungsfragen und -ziele schrittweise angehen zu können. Die Arbeiten bauen zum größten Teil sukzessive aufeinander auf, um einen wissenschaftlich fundierten Erkenntnisgewinn bei gleichzeitig hoher Praxisorientierung sicherzustellen.

Im ersten Forschungsbeitrag (**Beitrag 1**) werden grundlegende Ansatzpunkte eines effizienten und effektiven Einsatzes von Methoden des Data Mining am Beispiel vertrieblicher Herausforderungen und Problemstellungen einführend erörtert. Nach der Darbietung einer Übersicht von relevanten Methoden für ein wissensgetriebenes Management erfolgte die Herausarbeitung von Data Mining als zentrales Element eines modernen Informationsmanagementsystems. Im Anschluss an die Kennzeichnung zentraler Elemente eines ganzheitlichen Informationsmanagementkonzepts am Beispiel des CORIM<sup>®</sup>-Ansatzes nach Wiedmann/Jung (1996) und der Betonung, dass im Zuge eines Customer Relationship Managements die Kundeninformationen den zentralen Kern eines jeden managementorientierten Informationskonzeptes bilden, wurden zentrale Umsetzungsaspekte von Data Mining diskutiert. Hierbei wurde vor allem ein Closed Loop zur integrativen Verankerung von Data Mining akzentuiert, der die ganzheitliche Informationsmanagementrückkopplung zwischen den verschiedenen Ebenen – operative und strategische Management- sowie Informationsebene einerseits, Datenanalyse- und Datenspeicherungsebene andererseits – (auch tatsächlich in der praktischen Realität) gewährleisten soll. Im Anschluss daran wurde die praktische Tauglichkeit einer intelligenten und strukturierten Anwendung von Data Mining exemplarisch am internetbasierten Vertrieb anhand von zwei realen Case Studies unter besonderer Berücksichtigung des Einsatzes von Künstlichen Neuronalen Netzen (KNN) demonstriert. So konnte z.B. in der ersten Case Study mit Hilfe von KNN eine Prognose der Aufmerksamkeitswirkung und der damit einhergehenden Optimierung des Designs eine Steigerung der Konversionsrate von mehr als 20 Prozent erreicht werden. Im Rahmen des ersten Beitrags ließ sich damit einge-

hend aufzeigen, wie durch den systematischen Einsatz von Data Mining die Handlungsqualität des Managements am Beispiel des Vertriebs nachhaltig verbessert werden kann.

Der Einsatz von Partial Least Squares zur ersten theoretischen Fundierung des multidimensionalen Konstruktes Markentradition erfolgte als Kerngegenstand des zweiten Forschungsbeitrages (**Beitrag 2**). Hierzu wurde ein erstes umfassendes Wirkungsmodell der Markentradition auf Basis einer PLS-basierten Strukturgleichungsmodellierung theoretisch aufgestellt und empirisch mit inhaltlichem Bezug zur Automobilindustrie überprüft. Dem aufgestellten Wirkungsmodell konnte eine hohe Güte und Prognosefähigkeit nachgewiesen werden. So zeigte sich unter anderem, dass alle formativen Indikatoren des Konstruktes Markentradition, welches erstmalig neu aufgestellt und aus insgesamt 15 formativen Indikatoren zusammengesetzt wurde, mit einem globalen Traditions-Item auf hoch signifikantem Niveau stark korrelierten. Dies kann als Beleg für eine zufriedenstellende externe Validität des erstmalig konzeptualisierten und operationalisierten Markenkonstruktes interpretiert werden. Des Weiteren konnte ein moderater bis starker Einfluss der Markentradition auf ausgewählte Kernkonstrukte des Marketings nachgewiesen werden. Insbesondere die Wirkungsstärke auf das Markenimage fiel mit einem Pfadkoeffizienten von 0.789 besonders hoch aus. Die formativen Indikatoren *Bonding* (Beziehungsnähe), *Credibility* (Glaubwürdigkeit) und *Continuity* (Kontinuität) erwiesen sich in dieser Studie als die stärksten Traditionstreiber mit äußeren Gewichten in Höhe von 0.276, 0.236 und 0.163.

Aufbauend auf den Erkenntnissen des zweiten Forschungsbeitrages und einer ersten Bestimmung der umfassenden Wirkungseffekte der Markentradition, wurde im dritten Forschungsbeitrag (**Beitrag 3**) der Einfluss der Markentradition auf das Markenimage im Detail analysiert, wiederum mit inhaltlichem Bezug zur Automobilindustrie. Hierzu erfolgte eine Feinkonzeptualisierung des Markenimages als einstellungsbasierte Markenstärke mit den drei Dimensionen kognitiv, affektiv und konativ (intentional). In Übereinstimmung mit den Studienergebnissen des ersten Beitrages, konnte mit Hilfe von PLS ein starker Einfluss auf die einstellungsbasierten Dimensionen des Markenimages bestätigt werden. Konkret sind die Pfadkoeffizienten zwischen der Markentradition und der kognitiven, affektiven und konativen Markenstärke mit Werten von 0.836, 0.859 und 0.802 als sehr stark zu kennzeichnen. Des Weiteren erzielt das aufgestellte Partialmodell mit  $R^2$ - /  $Q^2$ - Werten von 0.643 / 0.405 (konative Markenstärke) bis 0.738 / 0.495 (affektive Markenstärke) eine sehr hohe Güte und Prognosestärke. Die stärksten Treibereinflüsse auf Indikatorenebene gehen auch in dieser

Studie von der *Credibility* (Glaubwürdigkeit) und dem *Bonding* (Beziehungsnähe) aus. Dies bestätigt die eingangs aufgestellte These, dass die Traditionswirkung einer Marke sich besonders auf einer persönlichen Vertrauensebene formiert.

Vor dem Hintergrund der bisherigen Forschungsergebnisse erfolgte im vierten Forschungsbeitrag (**Beitrag 4**) die Überprüfung eines kundennutzenstiftenden Effektes der Markentradition. Als Untersuchungskontext diente diesmal die Luxusbranche, weil insbesondere Kunden von Luxusprodukten sich zunehmend der Bedeutung vom Ursprung und Erbe einer Marke durch die verstärkte Traditionskommunikation werbetreibender Luxusunternehmen bewusst sind. Mittels einer PLS-Analyse konnten starke Wirkungseffekte der Markentradition auf alle untersuchten Kundennutzendimensionen (affektiv, ökonomisch, funktional, sozial) bestimmt werden. Die Pfadkoeffizienten erreichten hierbei hohe Werte von 0.575 (Markentradition auf sozialem Kundennutzen) bis 0.715 (Markentradition auf affektivem Kundennutzen). Weiterhin erzielte das vorgestellte Strukturmodell mit  $R^2$ - /  $Q^2$ - Werten von 0.331 / 0.282 (sozialer Kundennutzen) bis 0.511 / 0.407 (affektiver Kundennutzen) eine insgesamt gute Modellgüte und Prognosestärke. Als stärkste traditionsbasierte Kundennutzentreiber erwiesen sich *Familiarity* (Vertrautheit), *Identity Meaning* (Identitätsfit) und *Cultural Meaning* (Kulturstärke). Dieses Ergebnis impliziert, dass Kunden von traditionsreichen Luxusmarken einen besonders hohen Nutzen aus der gefühlten persönlichen Nähe und dem Aufzeigen eines bestimmten Lebensgefühls ziehen. Genauer gesagt spenden diese Marken Vertrauen, indem sie ihren Kunden die Möglichkeit bieten, einen bestimmten Lebensstil zu pflegen bzw. (wieder) zu erleben.

Nachdem im vierten Forschungsbeitrag die Traditionsrelevanz von Marken im Luxussegment festgestellt werden konnte, wurde als nächster Analyseschritt im fünften Forschungsbeitrag (**Beitrag 5**) die spezifische Wirkung der Markentradition auf die Luxuswahrnehmung und auf den Kundennutzen unter Rückgriff auf eine PLS-basierte Kausalmodellierung detaillierter untersucht. Die sowohl modellbedingt notwendige formative Neukonzeptionalisierung als auch -operationalisierung der Konstrukte Luxuswahrnehmung (zehn formative Indikatoren) und Kundennutzen (vier formative Indikatoren) erwiesen sich als reliabel und valide. So korrelierten alle formativen Indikatoren mit einem entsprechenden Global-Item signifikant auf mäßigem (Luxus: Einzigartigkeit / *Luxury: Uniqueness* mit  $r=0.170$ ) bis hohem Niveau (Kundennutzen: affektiv / *Customer Perceived Value: affective* mit  $r=0.621$ ). Es zeigte sich ein starker Wirkungseffekt der Markentradition auf die Luxuswahrnehmung (Pfadkoeffizient: 0.837) und

auf den Kundennutzen (Pfadkoeffizient: 0.431). Des Weiteren konnte ein starker Einfluss von der Luxuswahrnehmung auf den Kundennutzen (Pfadkoeffizient: 0.428) und von dem Kundennutzen auf die einstellungsbasierte Markenstärke (Pfadkoeffizienten: affektive Markenstärke 0.754, kognitive Markenstärke 0.667, konative Markenstärke 0.753) empirisch nachgewiesen werden. Auf formativer Indikatorebene stellten sich die stärksten Treibereffekte (bestimmt durch die äußeren Gewichte) durch *Credibility* (Glaubwürdigkeit) und *Prestige* (Ansehen) bei der Markentradition, *Materialism* (Materialismus) und *Hedonism* (Hedonismus) bei der Luxuswahrnehmung sowie *affective perceived Value* (affektiver Kundennutzen) und *economic perceived Value* (ökonomischer Kundennutzen) beim Kundennutzen ein. Den Ergebnissen dieser Studie zufolge stärkt die Markentradition unter anderem die materialistische und hedonistische Luxuswahrnehmung einer Marke und fördert so die Nutzenstiftung sowohl auf der gefühlsmäßigen als auch finanziellen Ebene. Im Kern stützt die Markentradition damit den wahrgenommenen Gegenwert der hier untersuchten Luxusmarke kurzfristig (positives Wohlfühl) als auch langfristig (sichere Finanzanlage), womit wieder die Vertrauensbasis nachhaltig gestärkt wird.

Im nächsten erkenntnisgetriebenen Analyseschritt wurde im sechsten Forschungsbeitrag (**Beitrag 6**) der Wirkungseinfluss von Markentradition auf Reputation in einem erweiterten Modellierungsrahmen detailliert untersucht, in dem ebenfalls die Markenkonstrukte Kundennutzen und Markenimage sowie das Verhaltenskonstrukt Kaufabsicht integriert gewesen sind. Neben PLS sind im Rahmen dieser Studie, in der diesmal die Fahrradreifenbranche als inhaltlicher Untersuchungskontext herangezogen wurde, auch KNN zur vertieften Wirkungsanalyse zum Einsatz gekommen. Von der Markentradition ausgehend konnte ein sehr starker Effekt auf die Reputation (Pfadkoeffizient: 0.754) unter Anwendung von PLS festgestellt werden. Darüber hinaus konnten, mit Ausnahme von Reputation auf Kaufabsicht, signifikante sowie mäßig bis starke Effekte zwischen allen weiteren postulierten Konstruktbeziehungen bestimmt werden. Die tiefergehende Analyse mit KNN zeigte u.a. auf, dass die Wirkungseffekte der Markentradition nicht alle linear sind (hier: Kundennutzen und Kaufabsicht), sondern auch nicht-linear sein können (hier: Reputation und Markenimage). Trotz alledem erreichten die berechneten Effektstärken und die bestimmte Modell- und Prognosegüte zwischen beiden Analysetechniken ein ähnliches Niveau. Dieses Ergebnis unterstreicht einerseits die Leistungsfähigkeit und Ähnlichkeit beider Verfahren sowie die Zuverlässigkeit und Genauigkeit der erhobenen Untersuchungsmodelle.

Vor dem Hintergrund der bisherigen Ergebnisse erfolgte im siebten und letzten Forschungsbeitrag (**Beitrag 7**) die Zusammenführung bzw. Aufstellung und Untersuchung eines ganzheitlichen Wirkungsmodells der Markentradition, indem bereits untersuchte Marken- (Luxus, Reputation, Kundennutzen und Markenimage) und Verhaltenskonstrukte (Kaufabsicht) konzeptionell aufgenommen worden sind. Als spezifischer Untersuchungskontext diente wieder die Luxusbranche, weil in dieser besonders traditions- und reputationsstarke Einflüsse vorherrschen. Wie in den vorangegangenen Studien kam PLS als Analysemethode der Wahl zum Einsatz. In einem detaillierten Analyseschritt wurden diesmal zusätzlich die Wirkungseffekte auf Basis eines adaptierten *Brand Funnels* für die folgenden (Markenbeziehungs-) Subgruppen bestimmt: Markenbewusstsein (*Awareness*), Markenproduktkenntnis (*Acquaintance*), Markenberücksichtigung (*Consideration*), Markenprobekauf (*Trial*) und (regelmäßiger) Markenkauf (*Purchase*). Hierbei zeigte sich auch die besondere Stärke von PLS, eine zuverlässige und gültige Modellberechnung ebenso mit vergleichsweise sehr kleinen Stichproben (hier: Markenkauf / *Purchase* mit  $n=60$ ) durchführen zu können. Des Weiteren wurden auf Basis der PLS-Analyse sogenannte entscheidungsorientierte Prioritätenkarten zur Verbesserung der Handlungsqualität (Ableiten von effektiven und effizienten Maßnahmen) für die einzelnen Subgruppen erstellt und in ein umfassendes Markensteuerungskonzept (*Brand Performance Cockpit*) integriert. Die Studie zeigte bestätigend auf, dass die Markentradition auf alle nachgelagerten Marken- und Verhaltenskonstrukte einen mäßigen bis starken Einfluss ausübt. Darüber hinaus konnten die von der Markentradition ausgehenden Total Effekte (direkte plus indirekte Effekte) für alle Subgruppen nachgewiesen werden. In Bezug auf die Beziehungstiefe der Subgruppen konnten außerdem tendenziell ansteigende Total Effekte von der Markentradition auf die Kaufabsicht festgestellt werden. So erreicht der Total Effekt für die Subgruppe Markenbewusstsein ein moderates Niveau von 0.38, während er bei der Subgruppe Markenkauf mit einem sehr starken Niveau von 0.71 beinahe doppelt so hoch ausfällt. Dieses Ergebnis zeigt noch einmal klar den (Management-) Wert und die (Verhaltens-) Relevanz auf, die von der Markentradition für bzw. auf ein positives Kundenverhalten zum Zwecke einer andauernden Kunden-Marken-Beziehung ausgehen.

*“All the flowers of all the tomorrows are in the seeds of today.”*

Unbekannt

### **3. Fazit und Ausblick**

Der systematische Einsatz von Data Mining zur Untersuchung von real existierenden Umweltprozessen, wie der Markenwahrnehmung im Allgemeinen und der Markentradition im Besonderen, unterstützt das (Marken-) Management bei der fundierten Entscheidungsfindung. Durch eine effiziente und effektive Informationsgewinnung und -auswertung wird das Management in die Lage versetzt, eine nachhaltige Wissensgenierung und -anwendung auf strategischer sowie operativer Ebene zu verfolgen (Frage 1). In der vorliegenden Beitragsammlung wurde sich speziell dem „Phänomen“ der Markentradition angenommen, welches als erfolgstreiberorientiertes Markenkonstrukt anhand von 15 Facetten konzeptualisiert wurde (Frage 2). Über alle durchgeführten Studien hinweg konnte diesem formativ operationalisierten Markenkonstrukt eine hohe Reliabilität und Validität bestätigt werden. Auf Basis von PLS-Pfadmodellierungen zeigten sich in allen Studien von der Markentradition ausgehend positive Wirkungseinflüsse auf zentrale und etablierte Konstrukte des Marketings, wie z.B. Reputation, Markenimage und Kaufabsicht, oder aber auch Kundennutzen und Luxuswahrnehmung (Frage 3). Darüber hinaus sind mit Hilfe von PLS-Analysen handlungsorientierte Prioritätenkarten zur fundierten Unterstützung des Managements bei der Entscheidungsfindung erstellt worden, um auf diesem Wege die Stell- bzw. Steuerungsgrößen mit den ressourcenoptimiertesten Wirkungseffekten abzuleiten. Auf diesem Wege wurde anhand einer zielgruppenbezogenen Durchführung dieser PLS-Analysen für alle „treibenden Markenkonstrukte“ ein erfolgsorientiertes Markensteuerungscockpit (*Brand Performance Cockpit*) konzipiert (Frage 4). Mit einem derartigen Informationsinstrument „in der Hand“ erfährt ein wissensgetriebenes Markenmanagement die nachhaltige Entscheidungskompetenz, für die jeweilige Zielgruppe individuelle Optimierungsfelder bezüglich der Markenwahrnehmung zu identifizieren und anzugehen.

Vor dem Hintergrund der neuesten neurowissenschaftlichen Erkenntnisse, dass die menschliche Wahrnehmung und das Verhalten größtenteils auf impliziter, also (eher) unbewusster und automatischer Ebene abläuft, ergibt sich ein zukünftiger Forschungsbedarf in erster Linie in Bezug auf den Einsatz von modernen Erhebungsmethoden der Neuroökonomie (vgl. einführend Hubert/Kenning 2008). Genannt werden sollen an dieser Stelle beispielhaft im-

plizite Methoden wie funktionelle Magnetresonanztomographie (fMRT), Elektroenzephalografie (EEG) oder impliziter Assoziationstest (IAT), die ergänzend (und nicht ersetzend) zu klassischen expliziten Erhebungsmethoden wie schriftliche Befragung eingesetzt werden sollten. Mit Hilfe dieser Erhebungsmethoden könnte zum Beispiel in einem ersten Erkenntnisschritt eine Analyse erfolgen, welche impliziten Codes auf der Wahrnehmungsebene die Tradition einer Marke besonders stark signalisieren. Ebenso ist interessant, ob und inwiefern Traditionsmarken eine belohnende Aktivierungsfunktion für das menschliche Hirn inne haben, die für „reguläre“ und starke Marken bereits mehrfach nachgewiesen wurden. Hier stellt sich generell die Forschungsfrage, in welchem Ausmaß es Traditionsmarken gelingt, die Markenwahrnehmung positiv einzurahmen (*framing*), insbesondere auf der impliziten Motivebene. Grundsätzlich scheint dabei der Einsatz von impliziten Erhebungsmethoden, die ihrer Natur entsprechend eine Unmenge an Rohdaten generieren, gerade in Kombination mit der Anwendung von leistungsstarken Methoden des Data Mining wie Künstliche Neuronale Netze, die ihrer Natur entsprechend eine Unmenge an Rohdaten auf unbekannte Muster hin untersuchen können, einen fruchtbaren Erkenntnisgewinn für ein verbessertes Kundenverständnis in der Zukunft zu versprechen.

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## **Beiträge der kumulativen Dissertation**

### **Beitrag 1**

Wiedmann, K.-P.; Schmidt, S. (2011):

Data Mining im Vertriebsmanagement, in: Homburg, C.; Wieseke, J. (Hrsg.): Handbuch Vertriebsmanagement: Strategie - Führung - Informationsmanagement - CRM, Gabler, Wiesbaden, S. 357-378.

### **Beitrag 2**

Wiedmann, K.-P.; Hennigs, N.; Schmidt, S.; Wuestefeld, T. (2011):

Drivers and Outcomes of Brand Heritage: Consumers' Perception of Heritage Brands in the Automotive Industry, in: Journal of Marketing Theory and Practice, 19 (2), pp. 205-220.

### **Beitrag 3**

Wiedmann, K.-P.; Hennigs, N.; Schmidt, S.; Wuestefeld, T. (2011):

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### **Beitrag 5**

Wiedmann, K.-P.; Hennigs, N.; Schmidt, S.; Wüstefeld, T. (2011):

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### **Beitrag 6**

Wiedmann, K.-P.; Hennigs, N.; Schmidt, S.; Wuestefeld, T. (2011):

Brand Heritage and the Impact upon Reputation: Corporate Roots as a Vision for the Future. Eingereicht und unter Begutachtung bei: Corporate Reputation Review.

### **Beitrag 7**

Wiedmann, K.-P.; Hennigs, N.; Wuestefeld, T.; Schmidt, S. (2011):

PLS Path Modeling in Strategic Management: Implementing Key Performance Drivers into a Brand Perception Cockpit.

Eingereicht und unter Begutachtung bei: Journal of Management.

## Hinweise zur Ko-Autorenschaft und Definition von Zuständigkeiten

Die vorliegenden Forschungsarbeiten wurden in Ko-Autorenschaft gemeinschaftlich erarbeitet. Sämtliche Inhalte (theoretische Fundierung, konzeptionelle Überlegungen, analytische Bearbeitung, etc.) basieren vollständig auf kollektiven und kooperativen Ausarbeitungen, wobei folgende Verantwortungsbereiche innerhalb der jeweiligen Beiträge definiert wurden:

### **Beitrag 1**

Verantwortungsbereiche von „*Data Mining im Vertriebsmanagement*“. Klaus-Peter Wiedmann: Supervision und Einführung; Steffen Schmidt: Grundlegende Ansatzpunkte von Data Mining im Vertrieb, Praxisbeispiele aus dem Bereich Unterstützung des internetbasierten Vertriebs mit Hilfe von Data Mining – unter besonderer Berücksichtigung des Einsatzes von Neuronalen Netzen sowie Fazit und Ausblick.

### **Beitrag 2**

Verantwortungsbereiche von „*Drivers and Outcomes of Brand Heritage: Consumers' Perception of Heritage Brands in the Automotive Industry*“. Klaus-Peter Wiedmann: Supervision; Nadine Hennigs: Introduction, Theoretical Contributions and Future Research; Steffen Schmidt: Methodology und Results and Discussion; Thomas Wüstefeld: Theoretical Background und Conceptual Model: Value-based Drivers and Outcomes of Brand Heritage.

### **Beitrag 3**

Verantwortungsbereiche von „*The Importance of Brand Heritage as a Key Performance Driver in Marketing Management*“. Klaus-Peter Wiedmann: Supervision; Nadine Hennigs: Conceptual Model and Related Hypotheses und Methodology; Steffen Schmidt: Introduction und Theoretical Background; Thomas Wüstefeld: Results and Discussion und Next Research Steps and Managerial Implications.

### **Beitrag 4**

Verantwortungsbereiche von „*The Impact of Brand Heritage on Customer Perceived Value*“. Klaus-Peter Wiedmann: Supervision; Nadine Hennigs: Theoretical Background und Conceptual Model: Brand Heritage and Effects on Customer Perceived Value; Steffen Schmidt: Methodology und Next Research Steps and Managerial Implications; Thomas Wüstefeld: Introduction und Results and Discussion.

### **Beitrag 5**

Verantwortungsbereiche von „*The Perceived Value of Brand Heritage and Brand Luxury: Managing the Effect on Brand Strength*“. Klaus-Peter Wiedmann: Supervision; Nadine Hennigs: Introduction und Construct Definition and Literature Review; Steffen Schmidt: The Conceptual Model and Related Hypotheses und Next Research Steps and Managerial Implications; Thomas Wüstefeld: Methodology und Results and Discussion.

### **Beitrag 6**

Verantwortungsbereiche von „*Brand Heritage and the Impact upon Reputation: Corporate Roots as a Vision for the Future*“. Klaus-Peter Wiedmann: Supervision; Nadine Hennigs: Methodology und next Research Steps and Managerial Implications; Steffen Schmidt: Construct Definition and Literature Review; Thomas Wüstefeld: Introduction und Conceptual Model and Hypotheses Development.

### **Beitrag 7**

Verantwortungsbereiche von „*PLS Path Modeling in Strategic Management: Implementing Key Performance Drivers into a Brand Perception Cockpit*“. Klaus-Peter Wiedmann: Supervision; Nadine Hennigs: Modeling Cause-effect Relations: The Case of Brand Perception; Steffen Schmidt: Introduction und Managerial Implications: The Implementation of Brand Perception Cockpit; Thomas Wüstefeld: The Measurement of Complex Cause-effect Relations und The Applicability of PLS-SEM in Strategic Management: A Literature Review.

# **Beitrag 1**

## **Data Mining im Vertriebsmanagement**

Wiedmann, Klaus-Peter  
Schmidt, Steffen

*Homburg, C.; Wieseke, J. (Hrsg.): Handbuch Vertriebsmanagement: Strategie - Führung - Informationsmanagement - CRM, Gabler, Wiesbaden, S. 357-378.*

# 4.2 Data Mining im Vertriebsmanagement

*Klaus-Peter Wiedmann, Steffen Schmidt*

- 1 **Einführung**
- 2 **Grundlegende Ansatzpunkte von Data Mining im Vertrieb**
- 2.1 Zur besonderen Relevanz von Data Mining für ein erkenntnisleitendes Informationsmanagement im professionellen Vertrieb
- 2.2 Anwendung geeigneter Methoden des Data Mining für ein wissensgetriebenes Vertriebsmanagement
- 2.3 Data Mining als zentrales Element eines modernen vertriebsorientierten Informationsmanagementsystems
- 2.3.1 Elementare Bestandteile eines ganzheitlichen Informationsmanagementkonzeptes im Vertrieb
- 2.3.2 Zentrale Umsetzungsaspekte von Data Mining
- 3 **Praxisbeispiele aus dem Bereich Unterstützung des internetbasierten Vertriebs mit Hilfe von Data Mining – unter besonderer Berücksichtigung des Einsatzes von Neuronalen Netzen**
- 3.1 Die Konversionsrate als zentrale Vertriebskennzahl des internetbasierten Vertriebs
- 3.2 Erstes Praxisbeispiel: Prognose der Aufmerksamkeitswirkung von Produkt-Landingpages bei Neukunden
- 3.3 Zweites Praxisbeispiel: Optimierung des Vertragsabschlussprozesses bei Bestandskunden eines Direktversicherers
- 4 **Fazit und Ausblick**

## Literaturverzeichnis



# 1 Einführung

Der Ansatz des Data Mining setzt an der Leitidee an, in vorhandenen „Datenbergen mit Hilfe geeigneter Schürftechniken Gold zu finden“. Das Bild des Goldschürfens passt in zweierlei Hinsicht in der Tat sehr gut: Zum einen, weil aus Daten generierte Informationen zweifelsohne eine der wichtigsten Wettbewerbsvorteilsressourcen im Marketing - und speziell im Vertriebsmanagement - darstellen und mithin bei richtiger Anwendung „Gold wert“ sind. Zum anderen bedarf es auch beim Data Mining vielfältiger Voraussetzungen sowie „Reinigungs- und Aufbereitungsstufen“, um „aus den gefundenen Gold-Nuggets“ tatsächlich einen ökonomischen Mehrwert ziehen zu können. Eine zentrale Grundvoraussetzung besteht etwa bereits darin, dass „an den richtigen Stellen zu schürfen ist“. Des Weiteren müssen die verantwortlichen Manager nicht zuletzt dazu in der Lage sein, den Unterschied zwischen „Dreck- und Gesteinsklumpen“ zu erkennen. Anknüpfend an diese metaphorische Skizze soll Data Mining im vorliegenden Beitrag als ein in ein umfassendes Managementsystem eingebetteter Ansatz vorgestellt werden, bei dem aus (vorhandenen) Daten mit Hilfe von vor allem statistisch-mathematisch fundierten Methoden entscheidungsrelevantes Wissen und letztlich über die damit im Vergleich zu Wettbewerbern möglichen Informationsvorsprünge ein wirtschaftlicher Nutzen zu generieren versucht wird.

Im Hinblick auf die Generierung eines nachhaltigen Nutzens für ein erfolgreiches Vertriebsmanagementsystem durch die Einbettung geeigneter Methoden des Data Mining in ein umfassendes Managementsystem spielt nicht nur die Würdigung spezifischer Vertriebsmanagementaufgaben eine zentrale Rolle, sondern auch die Betrachtung der jeweils spezifischen internen und externen, situativen Vertriebsbedingungen. Geht es z. B. um den Vertrieb von technischen Gütern an Geschäftskunden, wo der persönliche Dialog noch immer eine wesentliche Rolle spielt? Oder geht es um den Vertrieb von Konsumgütern und Dienstleistungen an private Endkunden, wo verstärkt auch eine professionelle internetbasierte Vertriebskonzeption an Relevanz gewinnt? Wie stark ziehen in diesem Zuge auch die Vertriebsprozesse öffentliche Aufmerksamkeit auf sich und stehen dabei etwa unter einem generellen Spionage- und Manipulationsverdacht? Wird z. B. ein Großteil des Vertriebs über das Internet abgewickelt, muss die im Feindbild der „digital großmächtigen Datenkraken“ Google, Facebook & Co. geschärfte öffentliche Kritik an überbordender, nicht transparenter und nicht kontrollierbarer Datensammlung gerade bei der Implementierung von Data Mining Konzepten besondere Aufmerksamkeit und Sensibilität finden.

Trotz aller Relevanz einer problemorientierten und situationsspezifischen Einbettung und Ausgestaltung von Ansätzen des Data Mining im Vertrieb wird eine entsprechend differenzierte Ausarbeitung eines ganzheitlichen Managementsystems im Rahmen des vorliegenden Beitrages nicht möglich sein. Im Zentrum der vorliegenden Abhandlung steht allein die Motivation,

1. *eine kurze Übersicht über die Spannweite der Methoden des Data Mining für den Vertrieb bieten und zugleich aufzuzeigen, in welcher Weise solche Methoden grundsätzlich in ein professionelles Vertriebsmanagement zu integrieren sind, um einen nachhaltigen Nutzen zu bieten,*



2. *konkrete Ansatzpunkte des Einsatzes von Methoden des Data Mining im Vertrieb* zumindest anhand einiger ausgewählter Beispiele zu verdeutlichen, die sich auf die Bewältigung einzelner Vertriebsmanagementaufgaben beziehen und sich jeweils stärker auf die Illustration einer spezifischen Methodik konzentrieren.

Zur Darstellung des Anwendungspotentials eines derartig vertriebsorientierten Data Mining Ansatzes werden in dieser Arbeit ein hybrider Online-/Offline-Vertrieb sowie ein reiner Online-Vertrieb ausgewählt. Beide Anwendungsfälle fallen in den Bereich Web Mining, also der Einsatz von Verfahren des Data Mining zur (teil)automatischen Auswertung von internetbasierten Daten (Cooley et al. 1997; Säuberlich 2003).

Abgesehen davon, dass aufgrund der Kürze dieses Beitrags die Möglichkeiten und Probleme von Data Mining nicht anhand aller relevanten Themen eines Vertriebsmanagements verdeutlicht und dabei zugleich konkrete Bezüge zu den unterschiedlichsten Vertriebsformen und -kontexten hergestellt werden können, muss auch der Themenkomplex der öffentlichen Kritik weitgehend ausgeblendet werden. Zwar ist davon auszugehen, dass sich öffentliche Kritik kaum formieren und/oder zumindest wenig an Relevanz gewinnen wird, wenn es mit Hilfe von Data Mining gelingt, einen tatsächlich überzeugenden Nutzen für die Kunden zu erzielen. Allein aber die Generierung solcher Nutzenpotenziale, die ja zugleich im unmittelbaren Interesse der Erzielung von Vertriebsereignissen zu sehen sind und insofern auch bei der Darstellung des ganzheitlichen (Wissens-)Ansatzes zur fundierten Entscheidungsunterstützung im Vertriebsmanagement zu einem für gesellschaftliche Ansprüche sensiblen „kundenorientierten Data Mining“ eine Rolle spielen wird, vermag jedoch die gesellschaftliche Problematik nicht vollständig zu entschärfen. Denn parallel dazu müssen auch jene Kosten in Betracht gezogen werden, die Kunden und andere Stakeholder bzw. Anspruchsgruppen in Kauf nehmen müssen, die durch die Nutzenzuwachschancen von Data Mining entstehen können (Verlust der Privatsphäre, Manipulationsrisiken etc.). Auf derartige Aspekte kann im vorliegenden Beitrag indessen nicht näher eingegangen werden – obwohl ein feinfühligere Umgang mit diesem Thema zweifellos eine relevante Anforderung an ein ganzheitlich ausgerichtetes Vertriebsmanagement darstellt. Im vorliegenden Beitrag liegt aber der primäre Fokus auf der Herausforderung, eine intelligente Einbettung sowie Nutzung von Data Mining in ein umfassendes und vertriebsorientiertes Managementsystem darzustellen.

## 2 Grundlegende Ansatzpunkte von Data Mining im Vertrieb

### 2.1 Zur besonderen Relevanz von Data Mining für ein erkenntnisleitendes Informationsmanagement im professionellen Vertrieb

Für eine professionelle Vertriebsleistung im Sinne einer *effektiven und effizienten innerbetrieblichen Leistungsverwertung* ist der Rückgriff auf fundierte Informationen eine unabdingbare Voraussetzung. Zentraler Gegenstand des dafür verantwortlichen Informationsmanagements ist die Bereitstellung von Informationen für die jeweiligen Vertriebsmitarbeiter und Führungskräfte, wobei der Natur der marktorientierten Unternehmensführung entsprechend kundenbezogene Informationen im Mittelpunkt der Bemühungen stehen (Homburg et al. 2008, S. 173).

Der *systematische Informationsbedarf eines professionellen Vertriebsmanagements* lässt sich dabei grundlegend in unternehmensexterne und unternehmensinterne Sachverhalte differenzieren. Ein unternehmensexterner Informationsbedarf herrscht bspw. in Bezug auf Kunden (Endabnehmer, Händler etc.), Wettbewerber und Marktsituation (Entwicklungen, Trends etc.). Die unternehmensinterne Informationsbedürfnislage bezieht sich derweil in erster Linie auf interne Vertriebsprozesse (Kundenakquise, Auftragsbearbeitung etc.). Der Umfang des anfallenden quantitativen und qualitativen Informationsbedarfs hängt derweil von der vertriebspolitischen Ausgestaltung des Absatzkanals bzw. der Absatzkanäle ab (vertiefend dazu Pepels 2007, S. 1-44). Hierzu zählen u.a. die Breite und Tiefe der Absatzwege, die Art des Vertriebssystems und der Absatzform. Diese Bestandteile der Absatzorganisation determinieren die Anzahl der Akteure im Absatzkanal. Es ist leicht einsehbar, dass mit zunehmender Anzahl von Austauschbeteiligten auch der Informationsbedarf zunimmt. Ein ubiquitärer, mehrstufig indirekter Absatz, der dezentral organisiert ist und (weitgehend) unpersönlich abläuft, bedarf in der Regel eines deutlich höheren Informationsniveaus, was für die meisten Konsumgüterhersteller zutrifft. Im Gegensatz dazu weist ein exklusiver, einstufig direkter Absatz, der zentral organisiert ist und persönlich via face-to-face vonstattengeht, ein vergleichsweise niedrigeres Informationsniveau auf, was häufig charakteristisch für Investitions- und Luxusgüterhersteller ist.

Grundsätzlich bleibt festzuhalten, dass unabhängig von der Art der Absatzorganisation für das Vertriebsmanagement in Bezug auf die Steuerung der jeweiligen (internen und externen) Austauschbeziehungen ein quantitativer und qualitativer Informationsbedarf besteht. Dieser bezieht sich bspw. bei Endabnehmern auf den ganzen Zeitraum der Kundenbeziehung, also die Vorverkaufs-, Kauf- als auch Nachkaufphase. Die seit Jahren stark voranschreitende informationstechnologische Vernetzung, der sich immer mehr Unternehmen auch außerhalb des E-Commerce stellen müssen, führt dabei zu einem exponentiellen Anstieg der kunden- und unternehmensbezogenen Datenberge in Unternehmungen. So wuchs in 2008 bspw. die stündlich aktualisierte Kundendatenbank des Handelsunternehmens

Wal-Wart um ca. eine Milliarde neuer Datensätze pro Stunde (Schaffry 2008, o.S.). Verschiedene Studien gehen hierbei für die kommenden Jahre weltweit von jährlichen Datenzuwachsrate zwischen 40 und 60 Prozent aus (siehe beispielhaft IDC 2007, S. 3; Cisco 2009, S. 1). Diese sich ausbreitenden Datenwüsten gilt es zur Beantwortung der verschiedensten Frage- und Aufgabenstellungen auf operativer und strategischer Managementebene zur fundierten Entscheidungsfindung zu nutzen, indem aus ihnen letztlich zweckdienliche Informationen gezogen werden.

Die *Nutzbarmachung der umfangreichen Datenmengen* stellt für Unternehmungen nicht nur eine gegenwärtige Herausforderung und Problematik dar, sondern auch gleichzeitig die Chance, nachhaltige Wettbewerbsvorteile zu schaffen. Durch den intelligenten Einsatz der verschiedenen Techniken des Data Mining, deren Leistungsfähigkeit und softwaretechnische Verfügbarkeit sich in den letzten Jahren und Jahrzehnten enorm verbessert haben, können die Daten heutzutage *systematisch nach wertvollen Wissensmustern* untersucht werden. Das bis dato enormes Potential verschenkt wird, deutet u.a. eine jüngere Untersuchung an, die davon ausgeht, dass mehr als 50 Prozent aller archivierten elektronischen Nachrichten in Unternehmen nicht weiter verwendet werden (pressetext Nachrichtenagentur 2007, o.S.). So steigen alleine die Kosten durch die Nachrichtenarchivierung, nicht aber der Nutzen durch eine methodengetriebene Wissensgewinnung. Dabei ermöglicht gerade die Anwendung von Techniken des Data Mining das vergleichsweise einfache Abschöpfen von wertvollem Wissen zur fundierten Entscheidungsunterstützung.

Dies gilt vor allem für die Unternehmen, die im Internet ihre primäre(n) Vertriebsaktivität(en) verankert haben. Insbesondere vor dem Hintergrund, dass zunehmend das Internet für die Datengebirge verantwortlich ist, welche durch den gegenwärtigen Trend der verstärkten Nutzung von internetfähigen Handys und Netbooks sowie Smartphones wie dem iPhone von Apple stetig wachsen (Zollondz 2009, o.S.). Außerdem kann jede Austauschbeziehung zwischen Kunde und Unternehmen in der Online-Welt, anders als offline, als digitaler Kontakt abgespeichert werden. Somit steht grundsätzlich eine vollständige Beziehungshistorie zur Verfügung. Mit Hilfe der online und offline erhobenen Kundendaten haben sich verantwortungsbewusste Vertriebsmanager auf Basis verschiedenster Quellen zu informieren (lassen), um hierüber eine *Wissensgewinnung im Sinne eines Erkenntniszuwachses* zu erlangen (vertiefend hierzu und im Folgenden insbesondere Janich 2006, S. 146-147). Die Generierung von Wissen auf Grundlage eines fundierten Informationsniveaus ermöglicht den Vertriebsmitarbeitern und Führungskräften die Bewertung der Realität innerhalb des diametralen Beurteilungsschemas von wahr und falsch. Anders ausgedrückt: Mitarbeiter und Manager können dann eine zielorientierte Entscheidung zur Lösung realer Problemstellungen im Bereich des strategischen und operativen Vertriebsmanagement treffen, wenn sie sich auf gesicherte Informationen bestmöglich verlassen können.

Vor diesem Hintergrund sollte die zielführende Motivation eines marketing- und vertriebsorientierten Managements darin bestehen, die anschwellenden Datenbestände bei einem gleichzeitig erhöhten Professionalisierungsgrad hinsichtlich des Einsatzes leistungsstarker Analyseverfahren auf intelligente Weise anzuzapfen und auszuwerten. Auf diesem Wege besteht u.a. die Erfolgsaussicht einer nachhaltig verbesserten Marktpositionierung

durch die erhöhte Unternehmens-, Kunden- und Wettbewerbsorientierung, alle drei zentrale Bezugfelder einer jeden Vertriebsstrategie, die mit dem Erschließen der Wissensquellen und dem damit verbundenen verbesserten Kenntniszustand der eigenen Umwelt einhergeht. Eine *intelligente vertriebsorientierte Wissensproduktion* setzt wiederum ein profundes Verständnis über die grundlegenden Anwendungsbereiche und -potenziale von Data Mining voraus, um diese im Vertrieb zweckmäßig und erkenntnisleitend einzusetzen. Dies wird Gegenstand des nächsten Abschnitts sein.

**Abbildung 4.2.1** Methoden des Data Mining im engeren und weiteren Sinne  
(Quelle: In Anlehnung an Blum 2006, S. 28)

<b>DM-Methoden i.w.S.</b>	<b>Beispiel</b>
<b>Abfragesprachen</b>	<i>Structured Query Language (SQL), Query by Example (QBE)</i>
<b>Tabellenkalkulation</b>	<i>Microsoft Excel</i>
<b>Datenbankprogramme</b>	<i>Microsoft Access</i>
<b>Multidimen. Abfragewerkzeuge</b>	<i>Online Analytical Processing (OLAP)</i>
<b>DM-Methoden i.e.S.</b>	<b>Beispiel</b>
<b>Statistik</b>	<i>Clusteranalyse, Faktoranalyse, Diskriminanzanalyse, Regressionsanalyse, Logistische Regression, Partial Least Squares</i>
<b>Visualisierung</b>	<i>Bayes Netzwerk, Linkanalysen, Scatter Plots, Glyphen</i>
<b>Maschinelles Lernen</b>	<i>Regelbasierte System (Entscheidungs bäume, Assoziationsregeln etc.), Neuronale Netze, Genetische Algorithmen, Beispielbasierte Suchalgorithmen (Fallbasiertes Schließen etc.)</i>

## 2.2 Anwendung geeigneter Methoden des Data Mining für ein wissensgetriebenes Vertriebsmanagement

Der Einsatz von Techniken des Data Mining verfolgt zwei wesentliche Zielsetzungen: *Wissenserklärung und Wissensentdeckung* (Buxel/Buckler 2000, S. 8). Der Begriff Data Mining erfährt derweil in der Literatur auf inhaltlicher Ebene ein teilweise recht breites Verständnis (Wiedmann et al. 2003, S. 23-24). Trotz der abweichenden Begriffsauffassungen kann Data Mining in einer ersten Annäherung als *lineare und nichtlineare Entdeckung von gültigen und neuen Mustern in umfangreichen Datenbeständen* verstanden werden. Aus Sicht eines wissensgetriebenen Vertriebsmanagements lässt sich dabei Data Mining als computergestütztes Musterlernen aus komplexen Datenmengen bei einer vertrieblichen Fragestellung verstehen, wobei Lernen grundsätzlich das hypothesengeleitete Erwerben von Gesetzmäßigkeiten der realen Umwelt anhand von empirischen Daten (Erfahrungen) ist (Wiedmann et al. 2003, S. 25). Zum Data Mining gehören Methoden verschiedener Wissenschaftsbereiche, wobei grundlegend zwischen *Methoden im weiteren und engeren Sinn* unterschieden werden kann (Blum 2006, S. 28-29). Dabei sind Methoden im engeren Sinn leistungstärker, da sie in der Lage sind, auch sehr große und eher unstrukturierte Datenmengen zu untersuchen.

Einige dieser Methoden, wie bspw. Künstliche Neuronale Netze und Genetische Algorithmen, ermöglichen auch die Analyse von nichtlinearen Beziehungen, womit im Endeffekt ein höherer Realitätsgrad der Untersuchungsmodelle erreicht wird. In Tabelle 4.2.1 sind ausgewählte Methoden des Data Mining im weiteren und engeren Sinn übersichtlich dargestellt.

**Abbildung 4.2.2** Typische Anwendungsfelder von Data Mining im Vertrieb

Typische Anwendungsfelder von Data Mining im Vertrieb	
Absatzprognosen	Optimales Produktbundle
Marktanteilsprognosen	Mailingoptimierung
Kundensegmentierung	Call-Center-Simulationen
Konversionsoptimierung	Routenplanung des Außendienstes
Preisoptimierung	Standortplanung

Data Mining kann prinzipiell in allen Problemfeldern des Vertriebs eingesetzt werden, wo Daten erhoben werden bzw. anfallen. Dabei lässt sich das eigentliche Ablaufschema der Datenanalyse mit Hilfe von Data Mining – Problemdefinition, Auswahl der Datenbasis, Datenaufbereitung und -reduktion, Methodenauswahl, Datenauswertung, Musterinterpretation, Ergebnispräsentation, Erkenntnisanwendung – auf alle problembezogenen Anwendungsfelder übertragen. Ein klassischer Anwendungsbereich ist z. B. die Bestimmung der Responsewahrscheinlichkeit bzw. des Responsepotenzials von angeschriebenen Personen (-haushalten) zur Optimierung von Mailings. In Abbildung 4.2. sind einige typische Anwendungsfelder von Data Mining im Vertrieb aufgelistet.

Ein wichtiger Punkt beim Einsatz von Data Mining zum intelligenten Angehen des Vertriebsproblems ist die *Anwendung der richtigen Methode*, die sinnvollerweise in zwei Schritten vorzunehmen ist. Im ersten Schritt gilt es das konkrete Vertriebsproblem zu benennen. Nicht völlig überschneidungsfrei von der Art des Anwendungsgebiets ist dabei zunächst eine Klassifizierung der vertrieblichen Problemstellung vorzunehmen. Eine zweistufige Vorgehensweise erscheint hier hilfreich (Wiedmann/Buckler 2003, S. 44-47). Die beiden Stufen dabei sind: Inhalt und Art der problembezogenen Aufgabenstellung. Auf der *inhaltlichen Ebene* kann das Problem operativer (z. B. tägliche Routenplanung) und strategischer (z. B. Distributionsplanung) Natur sein. Die *Art der zu lösenden Aufgabenstellung* kann sein: Aufstellung eines Erläuterungs- (einfache Datenanalyse mit Beschreibung und Erklärung), Erkenntnis- (Clustering, Klassifikation, Abhängigkeits-/Sequenzanalyse) oder Entscheidungsmodells (Prognose und Optimierung). Diese Reihenfolge spiegelt gleichzeitig den Grad der Handlungsqualität wider, d.h. inwiefern das Ergebnis der Datenverarbeitung eine konkrete Handlungsdirektive für den Entscheider beinhaltet.

Nachdem das Problem im ersten Schritt klassifiziert ist, gilt es im zweiten Schritt die Bestimmung einer oder mehrerer zweckmäßiger Methoden vorzunehmen, da nicht alle Methoden gleich stark zur spezifischen Problemlösung geeignet sind. Hierzu lassen sich folgende Verfahren heranziehen: Ergebnis-, Verfahrens- und Datenorientierung (vertiefend dazu Blum 2006, S. 25-27). Zu den *ergebnisorientierten Kriterien* zählen der Grad der Nützlichkeit (können die Ergebnisse sofort in konkrete Handlungen umgesetzt werden?) und Interpretierbarkeit (sind die Daten nicht nur für Experten klar und verständlich).

Zu den *verfahrensspezifischen Kriterien* gehören Anwendervorgaben (müssen Apriori-Annahmen gemacht werden und die Daten umfangreich vorbereitet werden?), Modellierung von Unsicherheit (sind statistische Gütemaße implementiert, die den Grad der Unsicherheit aufgrund der Verarbeitung von Daten mit niedriger Qualität anzeigen?), Lerntyp (ist ein intelligentes Modelllernen bei kontinuierlicher Erweiterung der Datenbasis möglich?), Laufzeit (Dauer der Rechenzeit). *Datenspezifische Kriterien* beziehen sich auf Datenmenge (können große Datenmengen verarbeitet werden?), Datenqualität (können unvollständige Daten ergänzt und fehlerhafte Daten verarbeitet werden?) sowie Datentransformation (kann mit umgewandelten Daten umgegangen werden?). In Tabelle 4.2.2 sind beide Schritte noch einmal zusammenfassend dargestellt.

Als eine besonders geeignete Methode haben sich *Neuronale Netze* erwiesen, die *auf fast alle Vertriebsprobleme anwendbar* sind. Ihre hohe Leistungsfähigkeit liegt darin begründet, auch Nichtlinearitäten entdecken und verarbeiten zu können, dabei eine Vielzahl an Variablen zu berücksichtigen und kontinuierlich (weiter) zu lernen (einführend dazu Wiedmann/Buckler 2003, S.39-102). Damit können auch Problemsituationen angegangen werden, die sich durch eine hohe Komplexität, Intransparenz, Dynamik und Unkenntnis in Bezug auf die Ursache-Wirkungs-Beziehungen auszeichnen. Kurzum: Neuronale Netze sind hervorragend geeignet, auch *realwirtschaftliche Vertriebsprobleme zu lösen*, indem sie vor allem unbekannte Muster in umfangreichen Datenbergen „aufspüren“ können. Nachteilig bei der Anwendung von Neuronalen Netzen sind die häufig recht langen Rechenzeiten und die mitunter schwierigere Ergebnisinterpretation.

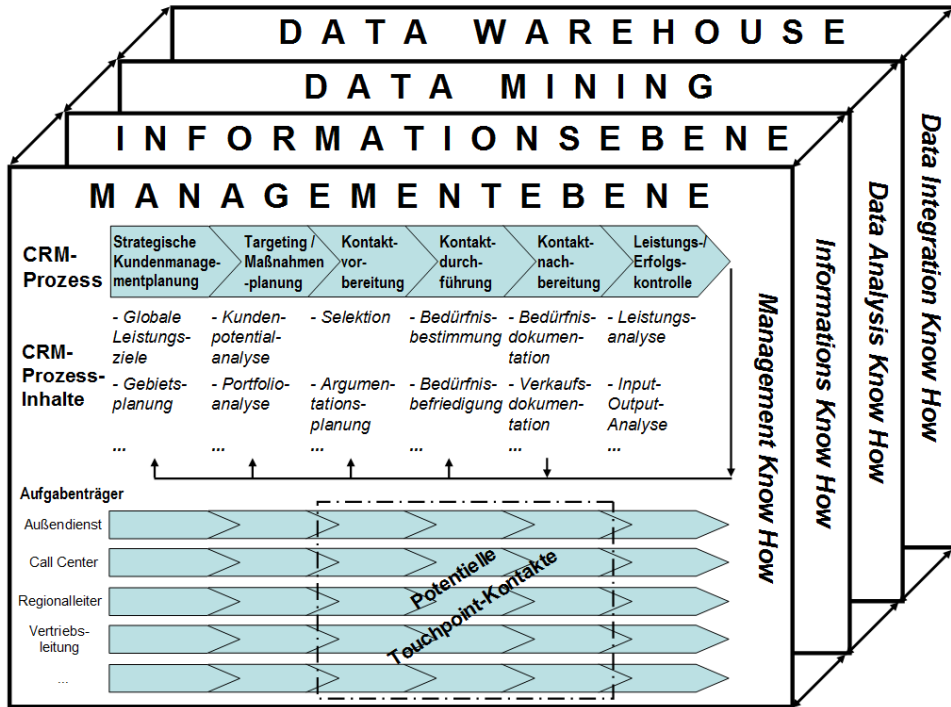
Letzten Endes gibt es aber *keine Methode, die eine Art „Allheilmittel“* darstellt, da jede Methode limitierende Schwächen aufweist und sich damit ein Problem mehr oder weniger gut lösen lässt. Der *intelligente Einsatz eines Methodenverbundes* kann hier Abhilfe schaffen (Blum 2006, S. 79). Entweder laufen die Methoden dabei selbstständig nacheinander ab, wobei die eine Methode Dateninput für die andere Methode liefert (z. B. Tree-Based Neural Networks, wo Entscheidungsbäume die Basis für Neuronale bilden), oder sie verbinden sich zu einer gemeinsamen Methode (z. B. Neuro-Fuzzy-Systeme). Dabei darf nicht vergessen werden, dass Techniken des Data Mining, ob nun einzeln oder im Verbund eingesetzt, ihrer Natur entsprechend zuallererst Daten benötigen, um überhaupt Informationen und Wissen für das Vertriebsmanagement generieren zu können. Ganzheitliche Informationssysteme zeichnen sich für die Versorgung mit den notwendigen Daten aus. Die Darstellung der Integration von Data Mining in ein systematisches Informationsmanagement zur Unterstützung der operativen und strategischen Vertriebsarbeit ist motivationaler Gegenstand des nächsten Abschnitts.

**Tabelle 4.2.3** Anwendungsspezifische Auswahlsschritte ausgewählter Methoden des Data Mining (Quelle: In enger Anlehnung an Blum 2006, S. 86-87)

		1. Schritt										2. Schritt														
		Klassifizierung der verteilichen Problemstellung										Bestimmung einer oder mehrerer zweckmäßiger Methoden														
		Inhalt der Aufgabenstellung																								
		Strategisches Problem																								
		Operatives Problem																								
		Art der Aufgabenstellung										Auswahlkriterien														
		Erklärungsmodell					Erkennismodell					Ergebnisorientierung					Verfahrensorientierung					Datenorientierung				
		Beschreibung	Erklärung	Clustering	Klassifikation	Abhängigkeitsanalyse	Entscheidungsmodell	Prognose	Optimierung	Nützlichkeit	Interpretierbarkeit	Anwendungsvorgabe	Unsicherheitsmodellierung	Lerntyp	Lernzeiten	Datennmenge	Datenqualität	Skalierung								
Neuronale Netze		☑	☑	☑	☑	☑	☑	☑	☑	+	-	-	+	+	+	+	+	+								
Genetische Algorithmen				☑	☑	☑	☑	☑	+	+	-	+	+	+	-	-	-	-								
Entscheidungsbäume				☑	☑	☑			+	+	+	+	-	-	-	-	-	+								
Fallbasiertes Schließen		☑			☑		☑		-	-	+	+	+	+	-	-	-	+								
Assoziationsregeln						☑			+	+	+	+	+	+	+	-	-	+								
Visualisierungstechniken		☑							+	-	+	+	-	-	+	+	+	+								
OLAP		☑				☑			+	+	+	-	-	+	+	+	+	+								

Erklärung: ++ sehr; + gut; - befriedigend; - schlecht; -- sehr schlecht

Abbildung 4.2.4 CORIM®-Ansatz (Quelle: In enger Anlehnung an Wiedmann/Jung 1996a)



## 2.3 Data Mining als zentrales Element eines modernen vertriebsorientierten Informationsmanagementsystems

### 2.3.1 Elementare Bestandteile eines ganzheitlichen Informationsmanagementkonzeptes im Vertrieb

Informationen sind zunächst als potentielle Wissensseinheiten zu verstehen, die benötigt werden, um fundierte Entscheidungen treffen zu können (Alex 1998, S. 9-11). Gleichzeitig muss davor gewarnt werden, die Bedeutung der aus Daten gewonnenen Information(en) aus Managementsicht weder über- als auch unterzubewerten. Informationen stellen in erster Linie Werkzeuge dar, die ohne ein zugrunde liegendes (Vertriebs-)Geschäft im Sinne eines (Unternehmens-)Konzepts mehr oder weniger nutzlos bleiben (vertiefend zu diesem Absatz insbesondere Drucker 2002, S. 122-123). Wichtig sind also Konzepte, die durch Integration der Werkzeuge ein ganzheitliches Informationssystem schaffen. Mit Unterstützung dieses System werden dann fundierte Vertriebsanalysen, -strategien und -entscheidungen möglich. Aus dieser Perspektive heraus dienen Informationen als Bewer-



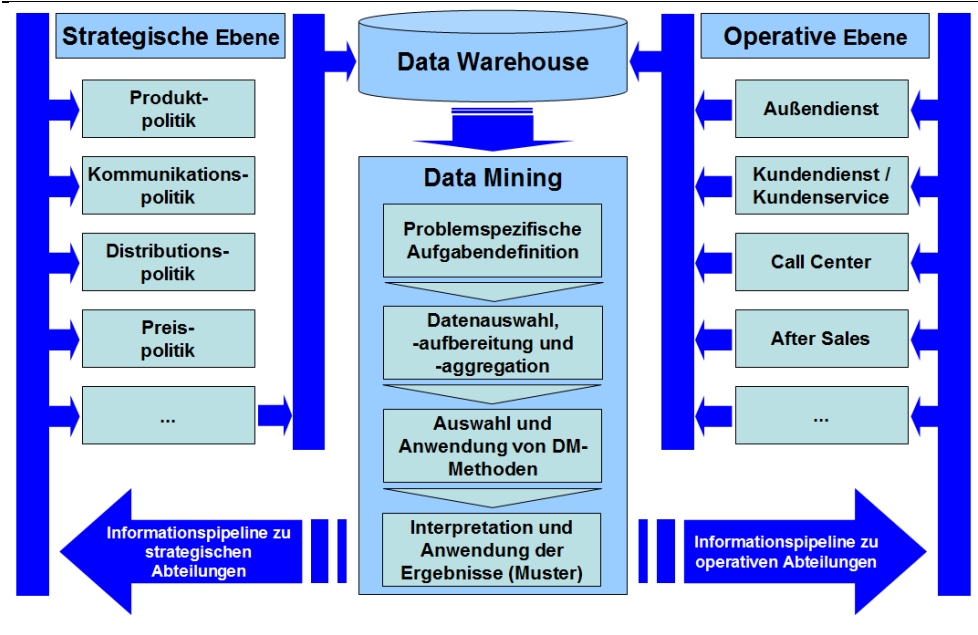
tungsgrößen für zukünftiges Handeln, statt der einfachen Dokumentierung des vergangenen Geschehens.

Mit diesem Verständnis wird in diesem Beitrag Informationsmanagement als Funktion der Gewinnung, Sortierung, Speicherung, Verteilung und Veredelung (durch intelligente Verarbeitung) von unternehmensinternen und -externen Informationen verstanden (Wiedmann/Buckler 2003, S. 44). Ein *ganzheitliches Informationsmanagementkonzept* stellt dabei der *CORIM®-Ansatz* nach Wiedmann/Jung (1996a) dar. Das zweckmäßige Zusammenwirken von Managementinformationen und -ausrichtungen einerseits und die datentechnische Bewältigung andererseits stehen im Mittelpunkt des *CORIM®-Ansatzes* (vertiefend Wiedmann/Jung 1996b, S. 5-7). Abbildung 4.2. zeigt die vier Ebenen auf, die durch *CORIM®* integriert werden. Es erfolgt somit ein systematisches Wechselspiel von der Managementebene über die Informationsebene (zur strategischen und operativen Analyse) und dem Einsatz von Data Mining (zur komplexen Datenauswertung) bis hin zum Data Warehouse (zwecks Datenspeicherung).

Eine zentrale Triebkraft im Vertrieb stellt die *Kundenorientierung* dar (Homburg et al. 2008, S. 1). Die Implementierung von kundenorientierten Prozessabläufen ist der Kerngegenstand des *methoden- und systemgestützten Vertriebs*, neudeutsch auch als *Customer Relationship Management (CRM)* umschrieben (vertiefend Winkelmann 2008a, S. 183 und S. 224-293). Dahinter verbirgt sich die *Vision eines integrierten Kundenmanagements*, welches Marketing, Vertrieb und Service systematisch mit einschließt. Grundidee ist, dass kunden(nutzen)orientierte Denken der Mitarbeiter mit Hilfe einer methoden- und computergestützten Vertriebssteuerung zu unterstützen. Eine ganzheitliche CRM-Prozesskette kann sich beispielhaft aus den folgenden sequentiell ablaufenden Phasen zusammensetzen: Strategische Kundenmanagementplanung, Targeting/ Maßnahmenplanung, Kontaktvorbereitung, -durchführung, -nachbereitung und Leistungs-/Erfolgskontrolle. Besonders hervorgehoben sei hier die besondere Relevanz, in den einzelnen CRM-Prozessen alle Ereignisse systematisch zu erfassen und zu analysieren, bei denen zwischen Unternehmen und Kunden ein persönlicher oder unpersönlicher Kontakt herrscht. Jeder dieser sogenannten Touchpoints ist gleichzeitig eine Verkaufs- und Bindungschance und daher besonders bedeutsam für den langfristigen Unternehmenserfolg.

Vor diesem Hintergrund ist es nachvollziehbar, dass *Kundeninformationen den Kern eines jeden vertriebsorientierten Informationsmanagementkonzeptes* mit CRM als ganzheitliche Managementausrichtung bilden sollten (vertiefend hierzu Homburg et al. 2008, S. 180-218). Die wesentlichen Informationen, die über Kunden jeglichen Typs (Endabnehmer, B2B, etc.) vorliegen sollten, sind hierbei: Grund- (Wer sind die Kunden?), Potenzial- (Was brauchen die Kunden?), Aktions- (Was tun wir für unsere Kunden?) und Reaktionsdaten (Wie erfolgreich sind wir / der Wettbewerber bei den Kunden?). Liegen derartige Informationen vor, lässt sich z. B. unmittelbar die Kundenstruktur untersuchen (z. B. ABC-Analyse), die Kundenprofitabilität bestimmen (z. B. Customer Lifetime Value) oder aber auch die Stabilität der Kundenbeziehungen feststellen (z. B. Kundenzufriedenheit und Kundenbindung).

**Abbildung 4.2.5** Closed Loop zur integrativen Verankerung von Data Mining  
(Quelle: In Anlehnung an Winkelmann 2008b, S. 182)



Bei der Implementierung eines derartigen Informationsmanagementsystems muss einerseits die Benutzerorientierung, Integrationsfähigkeit, Wirtschaftlichkeit und Sicherheit sichergestellt sein (Homburg 2008, S. 173-179). Gleichzeitig sind die potentiellen Informationsnutzer zu identifizieren und deren spezifischer Informationsbedarf festzustellen. Damit die Mitarbeiter und Führungskräfte letztendlich auch das Informationssystem nutzen, sind weiterhin eventuelle Nutzungsbarrieren zu überwinden. Häufig werden derartige Systeme abgelehnt, da die potentiellen Nutzer sich eingeschränkt und kontrolliert fühlen sowie einen eventuellen Informationspflegeaufwand meiden. Abhilfe kann hier eine rechtzeitige Informations- und Kommunikationskampagne schaffen, oder aber auch ein gezieltes Nutzertraining sowie immaterielle und materielle Motivationsanreize.

### 2.3.2 Zentrale Umsetzungsaspekte von Data Mining

Im Idealfall läuft Data Mining zur Gewinnung von Erkenntnissen bzw. Wissen als Grundlage der unternehmerischen Entscheidung(en) als vollautomatischer und eigenständiger Prozess ab. In der Praxis ist Data Mining aber nach wie vor ein eher *mehr oder weniger stark iterativer und interaktiver Prozess*, in dem der Anwender zahlreiche Entscheidungen selber treffen muss (Küsters 2001, S. 95). So ist eine der zentralen Zielsetzungen des Data Mining die Wissensentdeckung, also die Entdeckung von neuen Mustern. Damit wird aber eine hypothesenfreie Suche suggeriert, die es faktisch nicht gibt, damit die Analyse systematisch zum Wissenserfolg führt (Blum 2006, S. 17). So muss z. B. im Zuge der Aufgabendefinition

seitens des Anwenders immer noch vorgegeben werden, ob eine Verkaufsprognose auf Basis von Kundendaten durchgeführt werden soll, oder eher eine Kundensegmentierung auf Basis von Verkaufsdaten. In beiden Fällen würden hier die gleichen Datenbestände angezapft werden.

Die systematische Umsetzung von Data Mining beinhaltet verschiedene Phasen inklusive zahlreicher Rückkopplungen (einführend Hippner/Wilde 2001), wie in Abbildung 4.2. skizziert. Ein wichtiger Schritt ist die Auswahl der problemadäquaten Datenbestände (hier: Phase 2). Um bei der Datenanalyse ein „Garbage In, Garbage Out“ (GIGO-Effekt) zu vermeiden, ist vor allem auch eine hinreichende Datenreichhaltigkeit in Bezug auf die Datenquantität im Allgemeinen und Datenqualität im Besonderen sicherzustellen. Für die themenorientierte, zeitbezogene und dauerhafte Sammlung und Bereitstellung der Datenbestände zeichnet sich das Data Warehouse (DW) verantwortlich, ein von den operativen und strategischen DV-Systemen entkoppeltes Datenbankverwaltungs- und Datenverknüpfungssystem (vertiefend hierzu Winkelmann 2008b, S. 180-183). In einem DW werden alle unternehmensinternen Daten erfasst. Wie bereits erwähnt, sind aus Sicht des Vertriebsmanagements die kundenspezifischen Transaktions- und Kontaktdaten hierbei besonders wertvoll, wie z. B. regionale Verkaufszahlen oder Anzahl der monatlichen Reklamationen, die vor allem bei den operativen Touchpoints wie Außendienst oder Call Center anfallen. Ergänzt werden diese durch unternehmensexterne Daten, wie z. B. Marktforschungsdaten (aus Panelbefragungen, Testmärkten etc.).

Hinter dem Konzept des DW steht dabei auch die Idee einer Unternehmenskultur des permanenten, freiwilligen und lebenslangen Lernens. Mitarbeiter und Führungskräfte sollen die Informationsversorgung nicht als reine Bringschuld verstehen, sondern als Holschuld, um sich auf diesem Wege selbstständig das Kundenwissen anzueignen, dass sie für ihre Arbeit brauchen. Hierzu zählt aber auch gleichzeitig, dass die Mitarbeiter und Führungskräfte ebenso aufgefordert sind, für einen qualitativ hochwertigen Pflegezustand der Daten zu sorgen, indem sie z. B. aus dem Kundenkontakt entstandene Touchpoint-Daten (bspw. eine Bedarfsäußerung) vollständig und korrekt in die Kundendatenbank eintragen. Außerdem darf nicht vergessen werden, einen Closed Loop zur Sicherstellung der organisationalen Verankerung innerhalb der Vertriebsorganisation herzustellen (Winkelmann 2008b, S. 182). Damit soll eine ganzheitliche Informationsrückkopplung zwischen der operativen und strategischen Management- und Informationsebene einerseits und der Datenanalyse und -speicherung andererseits gewährleistet werden, wie in Abbildung 4.2. ebenso dargestellt. Leicht ersichtlich ist, dass hierbei verschiedene Abteilungen und Aufgabenträger involviert sind. Aus diesem Grund sind auf personeller Ebene funktionsübergreifende Teams zu bilden und mit entsprechenden Kompetenzen auszustatten, damit eine Umsetzung des Data Mining erfolgreich gelingt.

### **3 Praxisbeispiele aus dem Bereich Unterstützung des internetbasierten Vertriebs mit Hilfe von Data Mining - unter besonderer Berücksichtigung des Einsatzes von Neuronalen Netzen**

#### **3.1 Die Konversionsrate als zentrale Vertriebskennzahl des internetbasierten Vertriebs**

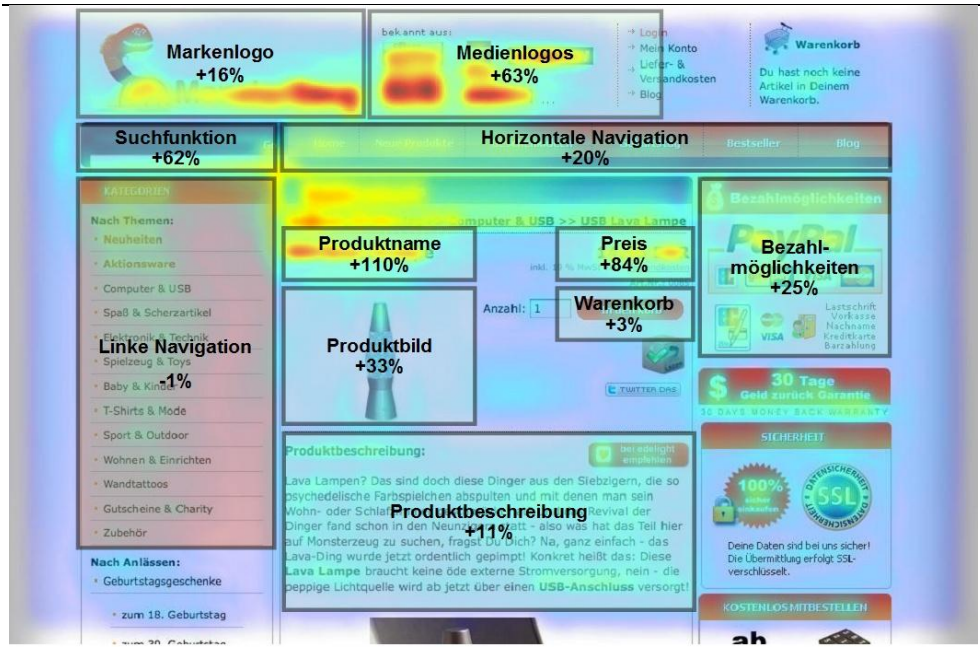
Nach den einführenden Darstellungen soll die praktische Leistungsstärke eines intelligenten Einsatzes von Data Mining im wissensgetriebenen Vertriebsmanagement demonstriert werden. Zur Verdeutlichung dienen zwei Anwendungsfälle, einmal aus dem Bereich reiner Online-Vertrieb und einmal für den hybriden Online-/Offline-Vertrieb. Die Messung der Effizienz der Anstrengungen bei der internetgestützten Kundenakquise lässt sich anhand der Konversionsrate vornehmen. Die Konversionsrate gibt das Verhältnis wieder von Käufen (bzw. Abschlüssen, Anmeldungen etc.) durch Besucher. Die theoretisch maximal erzielbare Konversionsrate liegt bei Eins.

Von einem Internetnutzer (User) werden die Inhalte einer Website dabei zweidimensional wahrgenommen (Thielsch 2007, S. 5-7). Je nach Bedürfnissituation sucht ein User ein entsprechendes Online-Angebot auf, um darüber die verschiedensten Inhalte (Web Content) aufzunehmen, wie bspw. Texte, Bilder und Filme. Aus wahrnehmungsphysiologischer Sicht erfolgt die Website-Rezeption visuell, wenngleich vermehrt auditive Inhalte wie Sounds in Online-Angeboten implementiert werden. Dabei erscheinen Internetnutzer grundsätzlich sehr ungeduldig, wenn es um die Rezeptionsdauer von Website-Inhalten geht. Nach einer Studie von Nielsen/Loranger (2006) liegt die durchschnittliche Verweilzeit auf einer Website bei lediglich 27 Sekunden, was nach Meinung der Autoren darauf zurückzuführen ist, dass der gesuchte Inhalt nicht gefunden wird (und damit letzten Endes auch nicht konsumiert werden kann) oder irrelevant ist (Nielsen/Loranger 2006, S.22). Aus Sicht des Vertriebsmanagements sind konsequenterweise alle Bemühungen darauf auszurichten, dass der Besucher nach Aufrufen des Online-Angebots den gewünschten bzw. erwarteten Inhalt finden und nutzen (Web Usage) kann (Chandler/Hyatt 2003, S. 145).

In der Literatur ist ein breiter Konsens erkennbar, dass sich in Massenmärkten langfristig nur die Unternehmen erfolgreich durchsetzen, deren Produkte und Dienstleistungen eine am User und seinen Werten orientierte Gestaltung des Nutzungserlebnisses gewährleisten (Jetter 2006, S. 2). Diese postulierte Prämisse gilt ebenso für Mensch-Maschine-Interaktionen im Allgemeinen und Mensch-Internet-Interaktionen im Besonderen. Dem Gedanken folgend muss das Ziel des internetbasierten Vertriebs sein, dass dem Nutzer während der Inanspruchnahme des Online-Angebots eine positive Websiteerfahrung widerfährt. Dies wird gemeinhin als User Experience umschrieben und umfasst neben der Wahrnehmung von relevantem Inhalt ein bedürfnisgerechtes Erleben und Nutzen des

Online-Angebots. Kurzum: Die wahrgenommene und erlebte Inhaltsqualität von Online-Angeboten stellt eine zentrale Erfolgsgröße des Online Marketings dar.

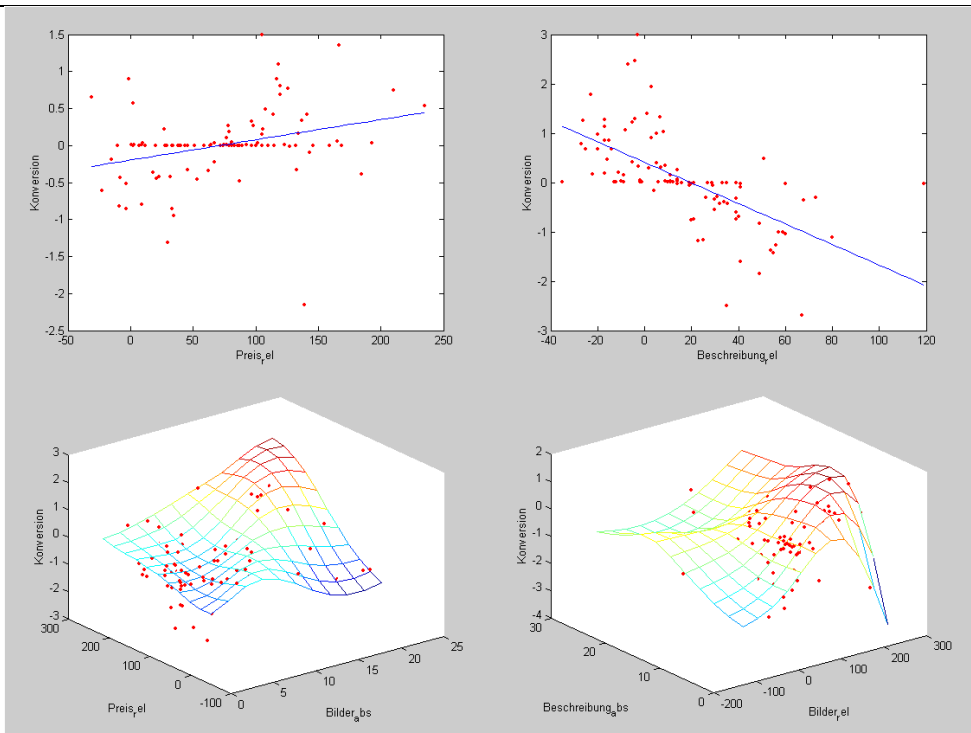
**Abbildung 4.2.6** Softwaregestützte Aufmerksamkeitsanalyse für eine Produkt-Landingpage



### 3.2 Erstes Praxisbeispiel: Prognose der Aufmerksamkeitswirkung von Produkt-Landingpages bei Neukunden

Erfolgreicher Internetvertrieb bedeutet die Optimierung des Online-Angebots derart, dass potentielle Neukunden im Rahmen der Kontaktvorbereitung dort abgeholt werden, wie es ihrer aktuellen psychischen Bedarfslage entspricht. Insbesondere Produkt-Landingpages von Online-Shops müssen zum Zwecke eines zielorientierten Vertriebs auf den ersten Blick unmittelbar den relevanten Inhalt vermitteln. Der Seiteninhalt selber setzt sich aus verschiedenen Bestandteilen zusammen. Hierunter fallen u.a. Shoplogo, Bilddarstellung, Text, Call-to-Action-Button (z. B. Warenkorb), Produktüberschrift, Preis, Partnerlogos (z. B. auch Vertrauensiegel wie „TÜV“-Logo) und viele weitere Elemente mehr. Dabei sind die einzelnen Inhaltsbestandteile auf die Wahrnehmung der Neukunden hin anzupassen. Die psychologische Maßeinheit hierfür stellt die Aufmerksamkeit dar. Da diese in einem gegebenen Zeitrahmen nur begrenzt verfügbar ist, gilt es eine optimale Verteilung der Aufmerksamkeit über die Seite derart zu erreichen, dass das Konversionsziel bedient wird.

Abbildung 4.2.7 Ergebnisse der neuronalen Konversionsratenanalyse



Innovative Softwarelösungen (z. B. EyeQuant von der Firma WhiteMatter Labs GmbH) erlauben mittlerweile die kostengünstige Aufmerksamkeitsvorhersage, ohne dass Probanden im Labor benötigt werden. In Abbildung 4.2. ist eine derartige Aufmerksamkeitsanalyse für eine Produkt-Landingpage beispielhaft dargestellt.

Im Rahmen der hier durchgeführten Studie galt es im *ersten Schritt* die problemspezifische Aufgabenstellung aus Sicht des Online-Vertriebsmanagements zu definieren, die hier wie folgt lautete: Bestimmung der optimalen Aufmerksamkeitsverteilung für die elementaren Seitenelemente einer Produkt-Landingpage mit dem Konversionsziel einer möglichst hohen Neukundenbestellrate. Der hier anfallende Informationsbedarf bezieht sich damit auf die CRM-Phase der Kontaktvorbereitung.

Im *zweiten Schritt* des Data-Mining-Prozesses, der Datenauswahl, wurden die seitenelementspezifischen Aufmerksamkeitswerte von 120 Produkt-Landingpages auf externem Wege sowie die mittleren Konversionsraten der jeweiligen Produkt-Landingpage auf interner Seite als Dateninput erhoben. Anhand der bloßen Kenntnis dieser zunächst isoliert stehenden Werte kann alleine nicht die Frage beantwortet werden, wie hoch hier das Optimum an Aufmerksamkeit für die einzelnen Seitenelemente ausfallen sollte, bspw. für das

Produktbild oder den Warenkorb-Button. Zum Zwecke der Wissensentdeckung wurden im *dritten Schritt*, der Methodenauswahl und -anwendung, aufgrund ihrer hohen Leistungsfähigkeit insbesondere Nichtlinearitäten zu untersuchen, Neuronale Netze herangezogen. Zum Einsatz kam hierbei die Analysesoftware Neusrel (vertiefend hierzu Buckler 2003).

Ausgewählte Untersuchungsergebnisse des *vierten und letzten Schrittes*, der Dateninterpretation und -anwendung, sind in Abbildung 4.2. veranschaulicht. Ein leicht positiver Zusammenhang zwischen Konversionsrate und relativer Aufmerksamkeitsstärke des ‚Preises‘ sowie ein mittlerer negativer Zusammenhang zwischen Konversionsrate und relativer Aufmerksamkeit der ‚Produktbeschreibung‘ ist zu erkennen. Weiterhin gibt es verschiedene Interaktionseffekte zwischen den einzelnen Seitenelementen. So bedingt eine hohe relative Aufmerksamkeitsstärke des ‚Preises‘ erst in Kombination mit einer hohen absoluten Aufmerksamkeitsstärke des ‚Produktbildes‘ eine hohe Konversionsrate. Ebenso begünstigt eine absolute Aufmerksamkeitsausprägung der ‚Produktbeschreibung‘ auf mittlerem Niveau bei einem gleichzeitig hohen relativen Aufmerksamkeitswert des ‚Produktbildes‘ eine hohe Konversionsrate. Auch eine mittelstark ausgeprägte absolute Aufmerksamkeitswirkung der ‚Produktbeschreibung‘ wirkt sich erst dann positiv auf die Konversionsrate aus, wenn gleichzeitig das ‚Produktbild‘ über eine entsprechend hohe relative Aufmerksamkeitsstärke verfügt.

Mit Hilfe der Neusrel-Software konnte letzten Endes eine neuronale Aufmerksamkeitsfunktion zur Prognose der Konversionsrate bestimmt werden. Auf diesem Wege ist es nun möglich, bestehende Produkt-Landingpages im Hinblick auf Aufmerksamkeitsdefizite zu untersuchen und entsprechende Maßnahmen durchzuführen. Eine Steigerung der Konversionsrate um mehr als 20 Prozent war das Ziel der Anpassungen nach Umsetzung der Untersuchungsergebnisse. Weiterhin wurde das erworbene Wissen (hier: die neuronale Aufmerksamkeitsfunktion) im Rahmen von Pretests zur Prognose des Konversionspotenzials von Prototypen-Produkt-Landingpages angewandt. Für Führungskräfte im Vertrieb dienen derartige Pretestergebnisse als objektive Entscheidungsgrundlage, z. B. welcher Typ von Produkt-Landingpages bei E-Mail- oder sonstigen Vertriebskampagnen eingesetzt werden sollte.

### **3.3 Zweites Praxisbeispiel: Optimierung des Vertragsabschlussprozesses bei Bestandskunden eines Direktversicherers**

Die auch in der Versicherungsdienstleistungsbranche vorherrschende *Realität zur erhöhten Dynamik und Komplexität* erfordert, wie in vergleichbaren Branchen, aus Sicht des Vertriebsmanagements einen anspruchsvollen Zielkundenumgang (Wiedmann 2003, S. 248-249). Zentrale Gründe für diese Entwicklung sind insbesondere die technologische Dynamik im Bereich der I&K-Technologien und die immensen ökonomischen sowie soziopolitischen Instabilitäten. Die Auswirkungen des gesamtgesellschaftlichen Wandels schlagen sich u.a. auf die Bedürfnis-, Denk- und Verhaltensmuster der (Privat- und Geschäfts-) Kunden nieder. Eine gegenwärtige Bedürfnissituation der Kunden im Bereich des

Versicherungsschutzes stellt die private Altersvorsorge dar, welche extern auch stark von der Politik vorangetrieben wird. Einer aktuellen, repräsentativen Infratest-Umfrage zufolge stellt die private Altersvorsorge für sechs von zehn Deutschen das zweitwichtigste Sparmotiv dar und 20 Prozent aller Deutschen investieren bereits in die staatlich geförderte Riester-Rente. Gleichzeitig sinkt aber, noch verstärkt durch fehlendes Wissen und die anhaltende Weltwirtschaftskrise, das Vertrauen und infolge dessen die Investitionsbereitschaft in die private Altersvorsorge.

Für das Vertriebsmanagement eines Direktversicherers sind das ernstzunehmende Herausforderungen. Im Gegensatz zu klassischen Versicherungsunternehmen, die auf einen persönlichen Austauschdialog setzen können, wickeln Direktversicherer ihren Vertrieb über das Internet bzw. Mailings und das Telefon ab. Dies macht es ungleich schwieriger, auf der einen Seite Vertrauen aufzubauen und auf der anderen Seite Wissen über komplexe Versicherungsprodukte zu vermitteln. Verstärkend hinzu kommt die extreme Zunahme der Wettbewerbsintensität auf allen Finanzdienstleistungsmärkten, u.a. bedingt durch eine erhöhte Informationsflut auf dem Kommunikationsmarkt aufgrund des verstärkten Markteintritts von unabhängigen Austauschbeteiligten (z. B. Finanzmakler, Verbraucherschützer etc.). So gibt es im Internet mittlerweile unzählige Versicherungs- und Finanzportale, die als unabhängige Beratungsseiten umfangreiche Preis- und Leistungsvergleiche anbieten.

Die vom Vertriebsmanagement geäußerte problemspezifische Aufgabenstellung, die hier in der Studie für einen deutschlandweit bekannten Direktversicherer angegangen wurde, bestand in der rechtzeitigen Unterstützung von Bestandskunden, die im Rahmen der Online-Formularantragsstellung für eine Riester-Rente vorzeitig im Antragsprozess abzubrechen drohten. All die Bestandskunden des Direktversicherers, die noch über keine Riester-Rente verfügten, wurden zunächst auf postalischem Wege angeschrieben und allgemein über die politischen Rahmenänderungen in Bezug auf die gesetzliche und private Altersvorsorge informiert. Das Mailing selber enthielt zusätzlich die Angabe eines Links zu einer Produkt-Landingpage. Deren primäres Ziel war es, im Zuge der Kontaktvorbereitung die Aufmerksamkeit mit Hilfe eines implementierten Beitragsrechners gezielt auf eine potentielle Lücke im Bereich der eigenen Altersvorsorge zu lenken und dabei gleichzeitig die Versicherungsvorteile der Riester-Rente des Direktversicherers anzupreisen. Um den inhärenten Versicherungsbedarf weiter zu stimulieren, wurden Informationsvideos auf der Produkt-Landingpage implementiert, die u.a. auf verschiedene familiäre Bedürfnissituationen eingingen (ledige Person mit hohem Einkommen, Ehepaar mit mittlerem Einkommen etc.). Bestandskunden, deren Interesse bzw. Versicherungsbedürfnis geweckt wurde, hatten auf der Produkt-Landingpage die Möglichkeit, sofort den Versicherungsantrag per Online-Formular zu stellen.

Aus vergangenen Marktforschungsstudien und den täglichen Webcontrollingdaten war das Vertriebsmanagement in Kenntnis gesetzt, dass rund ein Drittel der Antragssteller das Formular aufgrund von Usabilityproblemen und/oder Verständnisschwierigkeiten nicht vollständig ausfüllten, den Antragsprozess also vorzeitig abbrachen. Ziel war es, im Sinne einer Frühwarnerkennung die Bestandskunden mit derartigen Formularproblemen frühzeitig zu identifizieren, um diesen Kunden online rechtzeitig Unterstützung zukommen zu



lassen. Grundlage für einen erfolgreichen DM-Prozess war auch hier die gezielte Auswahl von relevanten Datenbeständen aus einem Data Warehouse, die ggf. anschließend noch miteinander gematcht werden müssen (Data Matching). Ausgewählt wurden neben klassischen Grunddaten (z. B. Alter, Geschlecht, Berufsgruppe) ebenso Reaktionsdaten (z. B. Responserate auf Mailings, Klickrate auf Produktteaser, Anzahl der aufgerufenen Formularseiten) sowie vergangenheits- und gegenwartsbezogene Aktionsdaten bezogen auf die Interaktion mit der Website des Direktversicherers (z. B. Surfhistorie, Klick- und Bewegungsverhalten, Surfdauer).

Wie auch im ersten Anwendungsbeispiel sind künstliche Neuronale Netze als Methode der Wahl zur Anwendung gekommen. Dabei wurden zwei Neuronale Netze trainiert: Ein Datenmodell zur Prognose von grundsätzlichen Usabilityproblemen und ein Modell zur Vorhersage von Verständnisschwierigkeiten beim Ausfüllen des Antragsformulars. Detaillierte Interaktionsanalysen haben gezeigt, dass starke Usabilityprobleme in erster Linie bei bestimmten Konstellationen von Mausclickhäufigkeit, Anzahl der aufgerufenen Formularseiten und Alter auftraten. Zentrale Indikatoren für nutzerspezifische Verständnisprobleme sind dagegen das Scrollingverhalten, Surfdauer und der Bildungsgrad.

Auf diesem Wege ergibt sich nun für das Vertriebsmanagement des Direktversicherers die Möglichkeit, zukünftig die ermittelte neuronale Usability- als auch Verständnisfunktion auf den eigenen Webserver softwaretechnisch zu implementieren, um damit eventuell auftretende Probleme auf Kundenseite während des Antragsausfüllprozesses vorherzusagen und entsprechende Unterstützungsmaßnahmen einzuleiten. Derartige serverseitige Implementierungen von Neuronalen Netzen existieren bereits seit einiger Zeit in automatischen Börsenhandelssystemen. Gelingt eine rechtzeitige Vorhersage, können geeignete Unterstützungsmaßnahmen getroffen werden. Hierzu zählen neben der automatischen Darbietung einer Online-Hilfe (wie z. B. bei Programmen wie Word von Microsoft Office bekannt) vor allem effiziente Servicedienstleistungen wie das automatische Einblenden einer Rückrufoption (Call-Back Option). Per Klick auf den Rückrufbutton, der erst bei Identifikation eines Handlingproblems eingeblendet wird, kann der Kunde spontan und einfach seinen Gesprächsbedarf äußern. Für einen Mitarbeiter aus dem Call Center des Direktversicherers besteht somit noch während des Ausfüllprozesses die Möglichkeit, mit dem Kunden gezielt in einen persönlichen Telefonkontakt zu treten und entsprechende Hilfestellung anzubieten zum Ziele einer hohen Abschlussrate.

## 4 Fazit und Ausblick

Durch den Einsatz von Data Mining mit dem Ziel des Entdeckens und Nachbildens real existierender Zusammenhänge aus der komplexen und dynamischen Unternehmensumwelt kann die Handlungsqualität des Vertriebsmanagements nachhaltig verbessert werden. Demnach bietet die systematische Anwendung von Methoden des Data Mining im wissensgetriebenen Vertriebsmanagement das Potenzial, die kombinierte unternehmensinterne und -externe Datenbasis wesentlich besser auszuschöpfen, ganz im Sinne einer fundierten Entscheidungsfindung auf operativer und strategischer Ebene. Wie im vorliegenden Beitrag an einigen Stellen dabei bereits skizzenhaft angedeutet wurde, gilt es beim Angehen von vertrieblichen Problemstellungen einen ganzheitlichen Informationsmanagementansatz zu verfolgen. Das zugrunde liegende Vertriebskonzept bestimmt den Informationsbedarf und gibt damit die „Schürfkoordinaten zum Erschließen neuer Wissensstollen“ vor. An dieser Stelle muss aber gleichzeitig vor einer blinden Methodengläubigkeit gewarnt werden, da sonst die Gefahr einer unternehmerischen Selbstentmachtung besteht. Anstatt die Ergebnisse und Erkenntnisse derartiger Datenmodelle als aktiver Entscheidungsträger kritisch zu hinterfragen, bliebe sonst nur die Rolle als passiver Handlungsträger. Aufgabe des modernen Managements ist es eher, die eigene Intuitionsfähigkeit, was nichts anderes ist als das jahrelang verinnerlichte Musterlernen, mit der Analysefähigkeit des Data Mining intelligent zu kombinieren. Der Brite Adrian Newey, der seit mehr als drei Jahrzehnten in der Formel 1 als Konstrukteur tätig ist und mehrere Weltmeistertitel gewinnen konnte, ist der lebende Beweis dafür, dass diese Strategie erfolgversprechend ist. Bei der aerodynamischen Gestaltung eines neuen Boliden verlässt sich der Brite zunächst alleine auf seine Intuition und zeichnet das Design mit einem Bleistift auf dem Papier vor. Erst danach wird dieses Design in einem Computer als Modell erstellt und dort per Simulationssoftware optimiert, bevor dann der erste Prototyp gefertigt wird. Auch der Bolide seines aktuellen Arbeitgebers Red Bull Racing wurde mit dieser Vorgehensweise eines der stärksten Fahrzeuge im Formel-1-Feld der Saison 2010, was sich erfolgreich niederschlug in dem Doppeltwiefeld des Konstrukteur- und Fahrertitels. Allerdings bedarf es hier noch weiterer systematischer Forschungsanstrengungen, um die Wirkungsweise von menschlicher Intuition und mathematischer Präzision zu verstehen.

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## **Beitrag 2**

### **Drivers and Outcomes of Brand Heritage: Consumers' Perception of Heritage Brands in the Automotive Industry**

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# DRIVERS AND OUTCOMES OF BRAND HERITAGE: CONSUMERS' PERCEPTION OF HERITAGE BRANDS IN THE AUTOMOTIVE INDUSTRY

Klaus-Peter Wiedmann, Nadine Hennigs, Steffen Schmidt, and Thomas Wuestefeld

Heritage brands stand for longevity and sustainability, as proof that the core values and performance of the given products are reliable. Focusing on the automotive industry, the aim of the present study is to analyze the drivers and outcomes of brand heritage, focusing on the functions of the brand as perceived by consumers. To explore the perceived values and outcomes of heritage brands, we present the methodology and the results of our empirical study using a partial least squares–based path modeling approach. Our results show the significant effects of brand heritage on consumers' attitudes and behaviors related to the given brand.

Especially in the present financial and economic crisis—a turbulent time characterized by high dynamics, uncertainty, and massive consumer disorientation—consumers tend to prefer brands with a heritage because these brands are perceived to be more credible, trustworthy, and reliable. Therefore, such choices minimize the perceived risks of a purchase decision (Leigh, Peter, and Shelton 2006). The heritage aspect represents longevity and sustainability as a promise to the stakeholders that the core values and performance of the brand are authentic and true (Urde 2003). In sum, the heritage of a brand adds the association of depth, authenticity, and credibility to the brand's perceived value. In addition, as a basis for distinctiveness in positioning, the heritage is helpful for building a special relationship with a consumer or a range of nonconsumer stakeholders. Therefore, as a competitive advantage, with reference to consumers to whom heritage is meaningful, the heritage of a brand can result in the willingness to accept higher

prices and higher consumer loyalty (e.g., Urde, Greyser, and Balmer 2007).

During recent years, the study of brands with a heritage as part of their corporate brand identity has gained growing interest in both marketing research and practice (Brown, Kozinets, and Sherry 2003a; Liebrez-Himes, Shamma, and Dyer 2007). Under certain situational conditions, the heritage of a brand seems to play an important role and adds value in the eyes of consumers (Urde, Greyser, and Balmer 2007). However, better knowledge of the conditions and drivers of brand heritage as well as its effects on consumer behavior is still needed.

Therefore, with special focus on the automotive industry, the aim of the present study is to examine the antecedents and outcomes of brand heritage, focusing on the functions or value of the brand as perceived by consumers. We chose the automotive industry because it is—as part of the global financial downturn—facing substantial market challenges; apart from an increase in prices of raw materials and automotive fuels, manufacturers have to deal with quality and reputation problems. The heritage of a brand may be, in the eyes of the consumers, a signal of trustworthiness that can help to overcome these problems.

First, we analyze the existing literature on the brand heritage construct and its elements; second, we develop a conceptual model focusing on the value-based antecedents and consequences of brand heritage; and third, to explore the various dimensions and effects underlying the perceived values of heritage brands, we present the methodology and results of our empirical study. Based on a partial least squares (PLS) path modeling approach, we identify the most important effects of the perceived heritage of a brand on consumer behavior. Finally, the results of our study are

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discussed with regard to future research and managerial implications.

## THEORETICAL BACKGROUND

### Consumer–Brand Relations and Brand History

According to Brown, Kozinets, and Sherry (2003b), strategic brand management models (e.g., Aaker 1991, 1996; Keller 1993, 1998) tend to downplay the complexity, heterogeneity, and experiential nature of the consumer–brand relationship. In general, these models follow a more structural view and conceptualize brand meanings as networks of associated beliefs and feelings (e.g., Desai and Keller 2002; John, Loken, and Joiner 1998). This understanding of brand meanings is valuable on a strategic management level to decide on appropriate brand positioning strategies. However, a more cognitive approach overlooks the emotional aspect of consumer responses to brands. A sophisticated knowledge of the cultural contents and social forces that activate brand meaning and consumer–brand relations is crucial in brand management (Brown, Kozinets, and Sherry 2003b). Reasoning this, the specific bond between an individual and a brand as an active relationship partner has to be regarded at the level of lived experiences in a social context (Fournier 1998). A brand can be interpreted as a social entity experienced, shaped, and changed in communities (Brown, Kozinets, and Sherry 2003b); its contemporary significance and “kernel of meaning” result from collective interpretations by multiple stakeholders over numerous but particular historical moments (Hatch and Rubin 2006). A growing body of marketing studies draws on a wide variety of brand heritages and the historical development of a brand in the tension between past, present, and future. Before we define the key concept of brand heritage, it is useful to distinguish heritage brands from other kinds of branding, such as retro brands, nostalgic brands, or iconic brands, and to differentiate between the general constructs of heritage and history.

As Table 1 shows, there are considerable overlaps among brand heritage and related constructs; however, there are significant differences to mention. Nostalgic branding refers to the use of products as materializations of memories linked to a utopian past that never really existed. Closely related to this, in today’s tumultuous world, retro brands are based on the desire to evoke past events of a particular, definitive epoch when life was perceived to be simpler and much less stressful. Iconic branding becomes manifest at present and lives on the power of symbols and myths constituted in the present and spread by social subgroups.

Because of its retrospective nature, history marketing has no reference to the present and future. In comparison to this, brand heritage embraces all the time frames from the past to present times and carries socially important values, the common heritage, from past epochs to contemporary contexts and even to the future.

### Definition of Brand Heritage

In contrast to a historical overview that is grounded only in the past, traditions and brand heritage embrace not only the time frame “the past” but also “the present” and “the future.” Born and nurtured over decades or even centuries, heritage brands have had the time to build a meaningful past, and having a heritage helps to make a brand relevant to the present and prospectively to the future. A brand that is infused with a heritage stands for authenticity, credibility, and trust, and can provide leverage for that brand, especially in global markets (Aaker 1996; George 2004). Urde, Greyser, and Balmer define the brand heritage construct as part of a corporate brand identity: “a dimension of a brand’s identity found in its track record, longevity, core values, use of symbols and particularly in an organisational belief that its history is important” (2007, pp. 4–5). Following their conceptualization, heritage brands constitute a different branding category with its own set of defining criteria and necessitate a specific approach to effective management and leadership. According to Aaker (2004), heritage is an important value driver, especially for corporate brands, as the early roots add authenticity and differentiation to the brands. The identity equity in such brands is extremely strong, the heritage helps “define these brands today and add value, especially when they are re-interpreted in a contemporary light” (Aaker 2004, p. 7).

### Elements of Brand Heritage

Based on the definition of brand heritage and its distinction from related constructs, it is useful to consider, as shown in Figure 1, five major elements that indicate whether and to what extent heritage is present or potentially found in a brand (Urde, Greyser, and Balmer 2007, p. 9).

The element *track record* is related to the established performance that the brand or the company has been connected with, such as certain values and promises over time (e.g., Volvo is continuously synonymous with safety) (Urde 1997). The second element of brand heritage, *longevity*, is of special importance for large multigenerational family-owned companies such as Ford Motor Company or Anheuser-Busch and reflects other brand heritage elements,

**Table 1**  
**Brand Heritage and Related Constructs**

Related Constructs	Author(s)/ Study	Definition/Main Focus	Overlaps and Differences to Brand Heritage
Retro Branding	Brown, Kozinets, and Sherry (2003b)	Retro brands are relaunched historical brands with updated features. Retro brand meanings are predicated on a utopian communal element and an enlivening paradoxical essence.	Similar to retro branding, brand heritage also has a retrospective spirit, but while retro branding is related to a particular, definitive epoch, often with a nostalgic character (e.g., Volkswagen's New Beetle), a brand with a heritage (e.g., Jaguar) draws from and clarifies the past as well as makes it relevant for current contexts and purposes (Urde, Greyser, and Balmer 2007).
Iconic Branding	Holt (2004)	Iconic brands stand for culturally dominant and distinctive symbols. In the process of transforming a brand into an iconic brand, one of the strongest influences is the importance of myth making.	Analogous to iconic brands, heritage is especially influenced by the use of symbols, but not all iconic brands are necessarily heritage brands. For heritage branding, myth making is relevant but not vital; it can only be one component of building a heritage brand (Urde, Greyser, and Balmer 2007).
Nostalgic Branding	Davis (1979)	Often cited is Davis's distinction between personal and communal nostalgia. Nostalgic brands evoke both former epochs and former selves. Also, such brands serve to bind consumers to their past based on their learning.	Like nostalgic brands, heritage brands link people to a retrospective perspective that is based on, for example, individual life cycles, experiences, and associations. However, more than that, brand heritage invokes the nostalgic character (including all personal and cultural association or learning) and makes it relevant for the future. Heritage as a legacy expresses future promises.
Brand Revival	Brown, Kozinets, and Sherry (2003b)	Between retro and revival, there is a considerable overlap. It can be defined as a relaunch of a product or service brand from a prior historical period, which is usually but not always updated to contemporary standards of performance, functioning, or taste.	An overlap between brand revival and brand heritage is that both evoke consumers' memories and harmonize the past with the present. Certainly, in contrast, heritage branding does not pursue the goal of renewing a brand. It is rather a question of how a brand can tell its story with a positioning and a value proposition based on its heritage.
History Marketing	Balmer (1994); Hobswawn and Ranger (1983); Ooi (2002)	In the management literature, business history represents an important stream of scholarship. History marketing is primarily characterized by the time frame "the past."	Lowenthal (1998) describes that the difference between heritage and history seems minor, but the perspectives are distinct. While history is retrospective and grounded in the past, a heritage brand embraces all time frames, including the future. History explores and explains what an often opaque past is; heritage, in contrast, makes the past relevant for today and tomorrow (Urde, Greyser, and Balmer 2007).

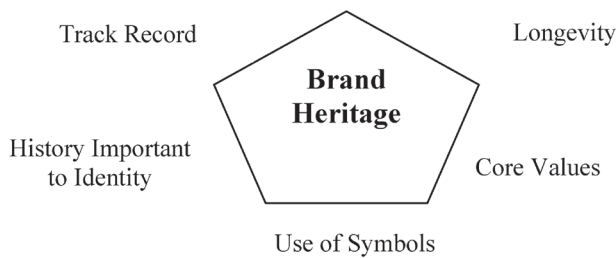
including sustainability and consistency (Urde, Greyser, and Balmer 2007, p. 9). *Core values* encompass the basic values the brand is associated with. Like a promise or covenant in external communication, these values underline and help to define corporate strategy and are an integral part of the brand identity (Kapferer 2004; Lencioni 2002; Urde 1994). The *use of symbols* is related to logos or designs and illustrates the brand's core meaning, such as the Mercedes star or the leaping feline of Jaguar (Urde, Greyser, and Balmer 2007, p. 10). The fifth component asks *whether history is important to identity*. Companies have to sense their own history as being crucially important to their identity. It

is absolutely essential that they know who and what they are. This understanding should also be a key part of communication, advertising, and the marketing mix (Brown, Kozinets, and Sherry 2003b).

#### CONCEPTUAL MODEL: VALUE-BASED DRIVERS AND OUTCOMES OF BRAND HERITAGE

In referring to an integrated understanding of the brand heritage construct and its elements, this research follows the work of Buß (2007). The multidimensional model supplements the insights of Urde, Greyser, and Balmer (2007) but

**Figure 1**  
**Key Elements of Brand Heritage**



focuses on the value-based antecedents and consequences of brand heritage.

### Antecedents of Brand Heritage

As a context-dependent (Holbrook 1999; Parasuraman 1997), highly personal, and multidimensional concept, perceived customer value involves a trade-off between the perceived benefits and costs (Zeithaml 1988), and can be defined as “an interactive relativistic consumption preference experience” (Holbrook 1994, p. 27). Research shows that successful brands must offer a superior cost-benefit relation in terms of a superior value to consumers to differentiate their product or service from that of competitors (Fill 2002). To enhance the current understanding of value perception in the context of brand heritage, the question of what really adds value in the consumer’s perception is defined in this paper through the existence of 15 different attitude-relevant, perceived latent customer value dimensions, as illustrated in Figure 2.

Closely related to consumers’ brand awareness and brand images (Keller 1998), our value-based drivers of brand heritage can be seen as “perceptions about a brand as reflected by the brand associations held in consumer memory” (Keller 1993, p. 3). A certain brand may satisfy functional and practical needs (e.g., safety and quality) as well as emotional and symbolic needs (e.g., self-expression, social identification, and status) (Bhat and Reddy 1998; del Rio, Vázquez, and Iglesias 2001). Heritage, as part of a brand’s past, present, and future identity, incorporates various aspects of a brand that can foster consumer loyalty: the personal identification function in terms of a congruence between the consumer’s behavior, his or her self-image, and the product image (Graeff 1996); the enhanced consumer desire or preference for a brand as a result of the perceived exclusivity and rareness of a limited product (Lynn 1991; Verhallen 1982); and the wish of the consumers for differentiation and exclusivity that can only be fulfilled when

the consumption and use of a certain brand enhances status (Leibenstein 1950; Vigneron and Johnson 1999, 2004).

### Outcomes of Brand Heritage and Effects on Consumer Behavior

To develop our hypotheses, for the sake of focus, we concentrate on the possible outcomes of brand heritage as the suggested effects on consumer behavior and the aforementioned constructs.

#### *Brand Heritage → Brand Perception and Consumer Behavior*

As stated above, heritage helps to make a brand more authentic, credible, and trustworthy, and can provide leverage for that brand. In addition, a brand with a heritage creates and confirms expectations about future behavior to stakeholder groups and makes a promise that the brand will continue to deliver on these commitments (e.g., Aaker 1996; George 2004). For this reason, the brand heritage construct can add consumer-perceived value and can minimize consumers’ buying risk (e.g., Muehling and Sprott 2004; Stewart-Allen 2002). Therefore, we suggest that brands that are infused with heritage have a positive influence on the perception of the brand in general (e.g., brand image or brand trust) and to the consumer behavior (e.g., loyalty or willingness to pay) in particular:

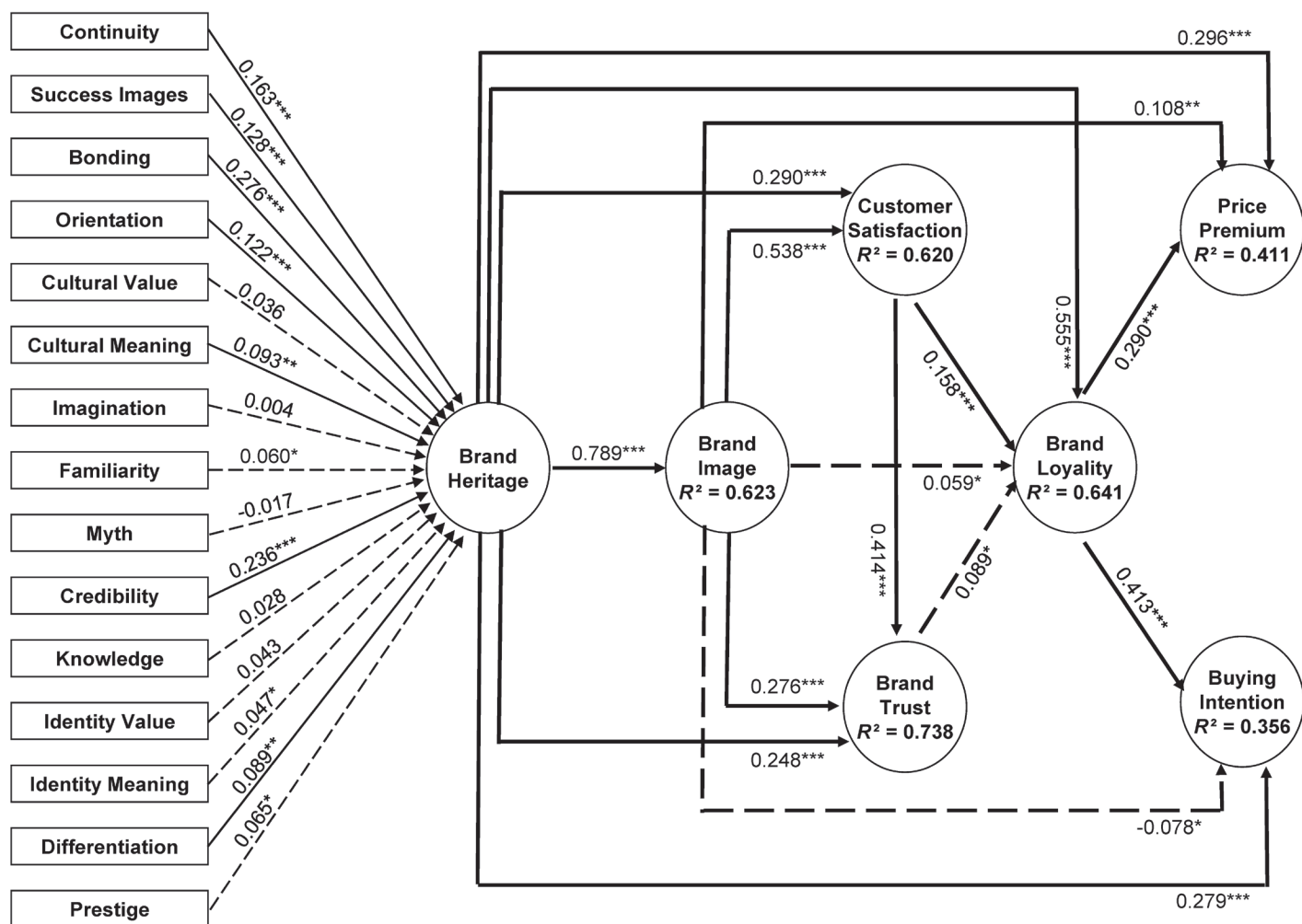
*Hypothesis 1: Brand heritage has a positive effect on the perception of the brand and customer behavior in terms of a positive relation with brand image, satisfaction with a brand, trust in the brand, loyalty to a brand, and the consumer’s willingness to pay.*

#### *Brand Image → Customer Satisfaction*

Brand image is defined here “as perception about a brand as reflected by the brand associations held in consumer memory” (Keller 1993, p. 3); it is one of the key impact factors of brand management and determines brand awareness. Studies have shown that the image of a brand has a direct influence on the consumer’s perceived quality, performance, expectations, and disconfirmations. The relationship between brand image and perceived quality has an effect on the consumer’s overall satisfaction or dissatisfaction (e.g., Bou-Llusar, Camisón-Zornaza, and Escrig-Tena 2001; Patterson, Johnson, and Spreng 1997; Selnes 1993) as “the consumer’s response to the evaluation of the perceived discrepancy between prior expectations and the actual per-



Figure 2  
Drivers and Outcomes of Brand Heritage



\*\*\*  $p = 0.01$ ; \*\*  $p = 0.05$ ; \*  $p = 0.1$ .

formance of the product as perceived after its consumption” (Tse and Wilton 1988, p. 204). Consequently,

*Hypothesis 2: The image of a brand is positively related to customer satisfaction.*

**Brand Image → Brand Trust**

An expectation of trustworthiness results from the ability to perform (expertise) and the reliability of a brand. An honest brand that stands for high quality minimizes buying risk. Therefore, brand image has a direct positive effect on the consumer’s intention to trust (e.g., Chaudhuri and Holbrook 2001; Garbarino and Johnson 1999; Michell, Reast, and Lynch 1998), defined “as the willingness of the average consumer to rely on the ability of the brand to perform its

stated functions” (Chaudhuri and Holbrook 2001, p. 82). Therefore, we hypothesize:

*Hypothesis 3: The image of a brand is positively related to a customer’s willingness to trust.*

**Brand Image → Brand Loyalty**

A positive brand image and personality are positively related to the attitude and loyalty to the brand, understood as

a long-term, committed and affect-laden partnership has also a constrained relationship-inspired insight by implicitly encouraging ignorance of the many other potentially valuable relationship forms that may characterize consumer-brand bonds. (Fournier 1998, p. 343)

Studies have shown a positive relationship between the image of a brand and brand loyalty (e.g., Baldinger and Rubinson 1996; Chaudhuri and Holbrook 2001; Wang 2002). This leads us to our next hypothesis:

*Hypothesis 4: A higher perceived image of a brand is associated with higher brand loyalty.*

#### *Brand Image → Buying Intention*

The brand image is of particular interest for determining the intention to purchase or use a certain product or service. On the one hand, the brand image is a key element in brand equity formation and management, and on the other hand, the brand image creates a particular value for the customers. This additional value can be an important driver for the construct buying intention, which has been analyzed in different empirical studies (e.g., del Rio, Vázquez, and Iglesias 2001; Faircloth, Capella, and Alford 2001). Therefore, we suggest the following:

*Hypothesis 5: The image of a brand has a positive effect on consumer buying intention.*

#### *Brand Image → Price Premium*

Similar to the effect of image on buying intention, willingness to pay, defined as “the maximum amount an individual would be willing to pay” (Hanemann 1991, p. 635), is influenced by brand image. A positive image of a brand has an influence on consumer preferences. If the consumer perceives an added value (endowed by the image), the brand equity rises and the willingness to pay is higher than for a brand with a more negative image. Therefore, brands with a positive image can generate a price premium (e.g., Kalra and Goodstein 1998; Park and Srinivasan 1994; Vázquez, del Rio, and Iglesias 2002). Consequently,

*Hypothesis 6: A positive image of a brand increases the price premium.*

#### *Customer Satisfaction → Brand Trust*

Empirical studies have confirmed the influence of satisfaction on confidence in the brand (e.g., Delgado-Ballester and Munuera-Alemán 2001; Geyskens, Steenkamp, and Kumar 1999; Selnes 1998). In particular, Geyskens, Steenkamp, and Kumar (1999) evaluated through meta-analysis the correlation between satisfaction and trust. One of the main results was that the higher the level of satisfaction, the higher the willingness to trust this brand. Based on these insights, we hypothesize:

*Hypothesis 7: Satisfaction with a brand is positively related to brand trust.*

#### *Customer Satisfaction → Brand Loyalty*

Consumer satisfaction as a result of a positive experience with a brand could be the reason for repurchase intention and loyalty as substantiated by diverse empirical validations in different industries and for different consumer groups (e.g., Fornell et al. 1996; Hallowell 1996; Mittal and Kamakura 2001). Therefore, as the perceived performance of a brand affects customer satisfaction and loyalty (e.g., Bou-Llusar, Camisón-Zornoza, and Escrig-Tena 2001), we suggest the following:

*Hypothesis 8: Satisfaction with a brand is positively related to brand loyalty.*

#### *Brand Trust → Brand Loyalty*

Perceived trust can reduce the perceived buying risk and the complexity of a buying decision with the result of a positive relation. Empirical insights could verify the positive correlation of trust and loyalty. In sum, some studies suggest that higher feelings of trust in a brand are associated with higher consumer loyalty (e.g., Delgado-Ballester and Munuera-Alemán 2001; Farrelly and Quester 2003; Gurviez and Korchia 2003; Sirdeshmukh, Singh, and Sabol 2002). Therefore, we hypothesize:

*Hypothesis 9: The feeling of trust in a brand is positively related to brand loyalty.*

#### *Brand Loyalty → Price Premium*

Studies have shown a relation between loyalty and price elasticity. In this context, a comparison between consumers who are loyal to a brand and consumers who are not loyal shows a significant gap in price sensitivity (e.g., Krishnamurthi and Raj 1991). In sum, one can state that higher loyalty leads to a higher willingness to pay a price premium (e.g., Chaudhuri and Holbrook 2001; Delgado-Ballester and Munuera-Alemán 2001). Consequently,

*Hypothesis 10: Loyalty to a brand is positively related to willingness to pay.*

#### *Brand Loyalty → Buying Intention*

Brand loyalty describes the actual past behavior and its impact on future buying intention, defined as a purchase probability of a customer actually willing to buy a product

(e.g., Whitlark, Geurts, and Swenson 1993). Empirical investigations have shown that brand loyalty positively influences willingness to buy the same brand in the future (e.g., Ewig 2000; Knox and Walker 2001; Wang 2002). Therefore, we hypothesize the following:

*Hypothesis 11: Loyalty to a brand is positively related to buying intention.*

We next present the methodology of our empirical test of the conceptual model (as shown in Figure 2) and the hypotheses described above.

## METHODOLOGY

### Questionnaire

To measure the underlying value dimensions and outcomes of brand heritage against the background of our multidimensional model, we used existing and tested reflective measures (e.g., Dean 1999; Kirmani, Sood, and Bridges 1999; Sen, Gurhan-Canli, and Morwitz 2001) and generated a measurement instrument of brand heritage based on formative indicators following the guidelines of index construction as described below. All the items were rated on a five-point Likert scale (1 = "strongly disagree," 5 = "strongly agree"), and because we were able to collaborate with one of the world's leading automobile manufacturers, the items were specified to an automotive context. The first version of our questionnaire was face validated twice using exploratory and expert interviews, and it was pretested with 30 respondents to check the length and the layout of the questionnaire as well as the quality of the items used.

### Brand Heritage Index Construction with Formative Indicators

The focal construct for which we seek to generate a measurement instrument based on formative indicators is brand heritage. In contrast to the development and validation of multi-item scales based on reflective measures, the index construction using formative measures has received little attention. Following the work of Diamantopoulos and Winklhofer (2001), we use four steps for constructing indexes based on a formative indicator: content specification, indicator specification, indicator collinearity, and external validity. Because the latent variable is determined by its formative indicators, the specification of the domain of content is extremely important. Failure to consider all the facets of the construct will lead to an exclusion of relevant indicators and parts of the construct itself.

Our understanding of brand heritage relies on the key elements proposed by Urde, Greyser, and Balmer (2007): the brand's track record, its longevity and core values, the use of symbols, and the importance of history to brand identity. Given this domain of content of brand heritage, the items used as indicators were selected to cover the entire scope of the five brand heritage elements. In our study context, we used the multidimensional model of Buß (2007) to specify our indicators. To determine whether the statements of Buß can capture fully the brand heritage construct's domain of content, we conducted exploratory interviews with marketing researchers and managers. The generation of the items followed the guidelines of clarity, length, directionality, lack of ambiguity, and avoidance of jargon (e.g., DeVellis 1991; Spector 1992). In a next step, we checked the multicollinearity among the indicators. As a result, there was no need for the exclusion of indicators; the maximum variance inflation factor (VIF) came to 3.367 and was below the common cut-off threshold of 10 (Diamantopoulos and Winklhofer 2001, p. 272). As an approach to external validation, we examined whether each indicator could be significantly correlated with a global item that summarizes the essence of brand heritage. We developed an additional statement, "In my opinion, brand XY is a brand with heritage." As shown in Table 2, all the indicators turned out to be significantly correlated with this statement; subsequently, all of the indicators were included in our study. After having followed the systematic steps as suggested by Diamantopoulos and Winklhofer (2001), our proposed specification of brand heritage-based formative indicators can be regarded as a valid measurement instrument.

### Sample

To investigate the research model, an Internet survey with a snowball sampling method was developed in Germany. It was organized using an Internet form sent to Internet forums and private customers via personalized e-mails with the invitation to actively contribute to the survey. In July 2009, a total of 458 valid questionnaires were received. Table 3 describes the sample characteristics.

Respondents were mainly 25 to 39 years, and those who have a higher education, are male, and are single were over-represented, which demonstrates that many male students and employees participated because they are particularly interested in cars. The higher percentage of young to middle-aged and male consumers in the sample may also be attributed to the greater Internet usage among the young to middle-aged.

**Table 2**  
**Test for External Validity of the Manifest Variables in the Formative Block**

<b>Brand Heritage: Formative Indicators</b>	<b>Spearman's Rank Correlation Coefficient</b>	<b><i>p</i></b>
BH_Continuity	0.338	0.000
BH_Success_Images	0.452	0.000
BH_Bonding	0.404	0.000
BH_Orientation	0.397	0.000
BH_Cultural_Value	0.396	0.000
BH_Cultural_Meaning	0.384	0.000
BH_Imagination	0.468	0.000
BH_Familiarity	0.508	0.000
BH_Myth	0.576	0.000
BH_Credibility	0.331	0.000
BH_Knowledge	0.363	0.000
BH_Identity_Value	0.486	0.000
BH_Identity_Meaning	0.323	0.000
BH_Differentiation	0.417	0.000
BH_Prestige	0.426	0.000

## RESULTS AND DISCUSSION

### PLS-Based Estimation of the Model

To measure complex cause-effect relationships with latent variables, structural equation modeling (SEM) approaches such as LISREL and PLS constitute two corresponding, yet distinctive (Schneeweiß 1991), statistical techniques (Temme, Kreis, and Hildebrandt 2006; Tenenhaus et al. 2005). In general, the use of LISREL or PLS should depend on the purpose and the context of the research (Reinartz, Haenlein, and Henseler 2009): LISREL highlights theory confirmation and focuses on maximizing the explained covariance among various constructs, whereas PLS stresses causal explanation and maximizes the explained variation among various constructs (Lauria and Duchessi 2007; Wu 2010). To explain relationships among the data, a covariance structure analysis based on maximum likelihood estimation (traditional LISREL ML estimates) was thought to be well suited for evaluating the relative fit of competing theoretical models (Hahn et al. 2002). On occasions and in contexts where it is difficult or impossible to meet the restrictive assumptions of more traditional multivariate statistics in complex models, PLS is the preferred method (Ringle 2006; Wold 1974, 1985).

In our exploratory study context of examining the drivers and outcomes of brand heritage, including formative as well as reflective measures, PLS path modeling was considered the appropriate method for the empirical tests of

our hypotheses. We used SmartPLS 2.0 (Ringle, Wende, and Will 2005) with case-wise replacement and a bootstrapping procedure (individual sign changes) for 448 valid cases. PLS is similar to regression, but it simultaneously models measurement paths and structural paths. The measurement model (outer model) relates the manifest variables (indicators) to the latent variables tested by reliability and validity analyses, while the structural model (inner model) relates some latent variables to other latent variables tested by path coefficients between constructs (Matzler and Renzl 2006). In general, the evaluation refers to the reliability and validity of the measures, the relationships between measures and constructs, and the interpretation of path coefficients (i.e., the links between different constructs) in a final model (Sarstedt, Schwaiger, and Ringle 2009).

The PLS path model for antecedents/drivers and consequences/reflectors of brand heritage consists of the formative measurement of the indicators defined as causing brand heritage and reflective measurement of the other latent variables illustrated in Figure 2. The evaluation of the results with reference to the outer and inner models is discussed in the following sections.

### *Evaluation Criteria for the Results of PLS Path Modeling*

For evaluating PLS estimates and for assessing the reliability and validity of the measures used, we follow the suggestions of Chin (1998) and his catalogue of nonparametric criteria for assessing partial model structures. In general, it should be stated that assessment of the structural model's properties are worthwhile only if the measurement models exhibit a satisfactory degree of validity (Henseler, Ringle, and Sinkovics 2009).

### *Evaluation of the Formative Measurement Model*

Referring to the evaluation of our formative measurement models with those value-based antecedents conceptualized as causing brand heritage, Table 4 presents the manifested variables defined as formative indicators for the construct brand heritage.

Understood as the indicators' relative importance in respect to forming the summed scale that represents the latent variable, the outer weights explain the latent variable with a small to high impact (Table 5). Even though some of the impact levels of the indicators does not differ significantly from zero, the inclusion or exclusion of these nonsignificant indicators only changes the PLS path model-

ing estimates slightly and, thus, does not affect our inner model analysis.

Regarding the question of multicollinearity in the formative measurement model, we investigated each variable's VIF values (Table 4), for which the maximum was 3.367. Thus, the VIF value clearly lies below the threshold value of 10, suggesting that multicollinearity does not pose a problem in our study.

### *Evaluation of the Reflective Measurement Models*

In regard to the evaluation of our reflective measurement models, the Appendix presents the manifest variables that constitute the reflective indicators to the given constructs. With regard to a reliable and valid reflective measurement of latent variables, we used several criteria to assess our reflective measurement models. Our results show sufficiently high factor loadings for all the factors, with 0.864 being the smallest loading. In addition, the average variance extracted (AVE), the internal consistency reliability test (Cronbach's alpha and composite reliability), and the discriminant validity (Fornell-Larcker criterion) exhibit satisfactory results, as shown in Table 6.

### *Evaluation and Discussion of the Structural Model*

As illustrated in Figure 2, the assessment of the aggregate PLS path coefficients in the inner model results in statistically significant relationships. The latent exogenous brand heritage variable exhibits a very strong relationship to the latent endogenous variables brand image and brand loyalty, while the influence on the other endogenous variables is considerably weaker but still significant. Moreover, brand image has a strong relationship with satisfaction, willingness to pay a price premium, and trustworthiness. Satisfaction significantly affects trustworthiness and brand loyalty, which strongly influences intention to buy and willingness to pay a price premium.

With reference to evaluation of our inner model, the coefficients of determination of the endogenous latent variables ( $R^2$ ) of all the constructs show moderate to substantial levels ranging from 0.356 to 0.738. Moreover, Stone-Geisser's  $Q^2$  (Geisser 1974; Stone 1974), which we measured using blindfolding procedures (cross-validated redundancy) (Tenenhaus et al. 2005), yielded values larger than zero for all the endogenous latent variables, suggesting the predictive relevance of the explanatory variables.

In sum, the assessment of the measurement models and the structural model shows that the PLS estimates are reliable and valid according to the criteria associated with the

**Table 3**  
**Demographic Profile of the Sample**

Variable	<i>n</i>	Percent
Age (in years)		
18–24	120	26.2
25–29	154	33.6
30–39	76	16.6
40–49	66	14.4
50 and older	42	9.2
Gender		
Male	359	78.4
Female	99	21.6
Marital Status		
Single	320	69.9
Married	125	27.3
Widowed	0	0.0
Divorced	13	2.8
Education		
Not graduated from high school	10	2.2
Lower secondary school	48	10.5
Intermediate secondary school	48	10.5
High school graduate	167	36.5
University degree	184	40.2
Not graduated from university	1	0.2
Income 1		
Very low income	20	4.4
Low income	48	10.5
Middle income	222	48.5
High income	138	30.1
Very high income	10	2.2
No answer	20	4.4
Occupation 1		
Full time	191	41.7
Part time	21	4.6
Pensioner/retiree	8	1.7
Early retirement	2	0.4
Homemaker	1	0.2
Job training	10	2.2
Student	212	46.3
Sick leave	1	0.2
Seeking work	12	2.6
Income 2 (in euros per month)		
> 500	38	8.3
500–999	79	17.2
1,000–1,999	81	17.7
2,000–2,999	77	16.8
3,000–3,999	58	12.7
4,000–4,999	31	6.8
5,000 and over	30	6.6
No answer	64	14.0
Occupation 2		
Self-employed	40	8.7
Freelancer	17	3.7
Employee	135	29.5
Executive employee	35	7.6
Civil servant	21	4.6
Laborer	21	4.6
Student	179	39.1
Not employed	10	2.2

**Table 4**  
**Manifest Variables and Test for Multicollinearity of the Formative Measurement Model**

Brand Heritage: Formative Indicators		VIF
BH_Continuity	Brand XY is very continuous.	1.776
BH_Success_Images	Brand XY is related to images of success.	2.353
BH_Bonding	I am bonded to brand XY.	3.367
BH_Orientation	Brand XY sets the valuation standard for other brands.	1.927
BH_Cultural_Value	The products of brand XY are a part of national treasure.	1.919
BH_Cultural_Meaning	The products of brand XY promote a certain way of living.	2.165
BH_Imagination	I have an absolutely clear image of brand XY.	1.764
BH_Familiarity	My familiarity with brand XY is very high.	2.950
BH_Myth	Brand XY has a strong cultural meaning.	2.058
BH_Credibility	Brand XY represents honesty and truthfulness.	1.724
BH_Knowledge	Brand XY is highly known in the society.	1.645
BH_Identity_Value	Brand XY has a strong brand identity.	2.347
BH_Identity_Meaning	If somebody praises brand XY, to me, it is a personal compliment.	2.237
BH_Differentiation	Brand XY is unique compared to other brands.	2.222
BH_Prestige	Brand XY has a very good reputation.	2.247

**Table 5**  
**Bootstrapping Results for the Outer Weights**

	Original Sample	t-Statistics
BH_Knowledge → Brand Heritage	0.028	1.080
BH_Bonding → Brand Heritage	0.276	4.562***
BH_Differentiation → Brand Heritage	0.089	2.210**
BH_Success_Images → Brand Heritage	0.128	2.797***
BH_Credibility → Brand Heritage	0.236	5.708***
BH_Identity_Meaning → Brand Heritage	0.047	1.314*
BH_Identity_Value → Brand Heritage	0.043	1.277
BH_Imagination → Brand Heritage	0.004	0.158
BH_Continuity → Brand Heritage	0.163	3.987***
BH_Cultural_Meaning → Brand Heritage	0.093	2.238**
BH_Cultural_Value → Brand Heritage	0.036	1.151
BH_Myth → Brand Heritage	-0.017	0.679
BH_Orientation → Brand Heritage	0.122	2.848***
BH_Prestige → Brand Heritage	0.065	1.583*
BH_Familiarity → Brand Heritage	0.060	1.518*

\*\*\*  $p = 0.01$ , \*\*  $p = 0.05$ , \*  $p = 0.1$ .

formative and reflective outer model as well as the inner path model. These results suggest implications for further research and managerial practice, as described next.

### THEORETICAL CONTRIBUTIONS AND FUTURE RESEARCH

The primary goal of this paper was to establish a multi-dimensional framework of value-based drivers and the consequences of brand heritage; to explore this framework with a special focus on the automotive industry, a related factor structure; and to identify significant causal relationships between the dimensions of perceived heritage value

and their effects on consumer attitudes, intentions, and the resulting behaviors using a PLS path modeling approach.

A better understanding of the heritage of a brand and related value aspects and effects in the eyes of consumers is valuable for both researchers and marketers. Particularly in times of high dynamics and purchase decisions that are associated with certain risks, the heritage aspect provides consumers with a feeling of security and well-being. Even though our results are only initial empirical hints, they should be explored in future research and implemented in managerial practice in different ways. In future analyses, analytical techniques such as finite mixture partial least squares (FIMIX-PLS; Hahn et al. 2002; Ringle, Sarstedt, and

**Table 6**  
**Assessing the Reflective Measurement Models**

	<b>Factor Loadings</b>	<b>AVE (Percent)</b>	<b>Cronbach's Alpha</b>	<b>Composite Reliability</b>	<b>Fornell-Larcker Criterion (AVE &gt; Maximum Corr<sup>2</sup>)</b>
Brand Image	0.920–0.938	86.31	0.842	0.927	0.86 > 0.79
Customer Satisfaction	0.942–0.948	89.35	0.881	0.944	0.89 > 0.80
Brand Trust	0.928–0.929	86.24	0.840	0.926	0.86 > 0.80
Brand Loyalty	0.864–0.901	78.20	0.861	0.915	0.78 > 0.69
Price Premium	0.956–0.961	91.85	0.911	0.958	0.92 > 0.60

Mooi 2010; Ringle, Wende, and Will 2010) or PLS typological alternatives (e.g., Esposito Vinzi et al. 2007; Ringle and Schlittgen 2007; Ringle, Sarstedt, and Schlittgen 2010) may provide further differentiated path modeling results that allow more precise interpretation and the identification of differences in path coefficients across subgroups. Furthermore, a multiple indicators multiple causes (MIMIC) model should be estimated for a more sophisticated validation of our presented formative heritage measurement model (e.g., Jöreskog and Goldberger 1975). In addition, a study focusing on diverse user groups (e.g., business-to-consumer and business-to-business samples) may lead to interesting results in comparing differences and similarities in the perception of a given heritage brand. Moreover, the importance of the heritage and tradition of a brand may vary in times of economic crises versus economic well-being. Therefore, a longitudinal study should compare the causal relationship of brand heritage to consumer attitude and behavior over time with reference to different heritage brands. The restriction of our study to the automotive context might have limited the extent to which the results and conclusions herein can be generalized to consumer purchasing attitudes and behaviors. Therefore, extension to and comparison with other product categories—including brands that cannot be considered heritage brands—could enhance the conceptualization, measurement, and management of the construct brand heritage.

In sum, we hope that this study is the starting point for future research in the area of brand heritage because the rise of retro, history, and nostalgia are everywhere apparent, and consumers seem to be searching for authentic products with genuine history in an increasingly global marketplace.

### MANAGERIAL IMPLICATIONS

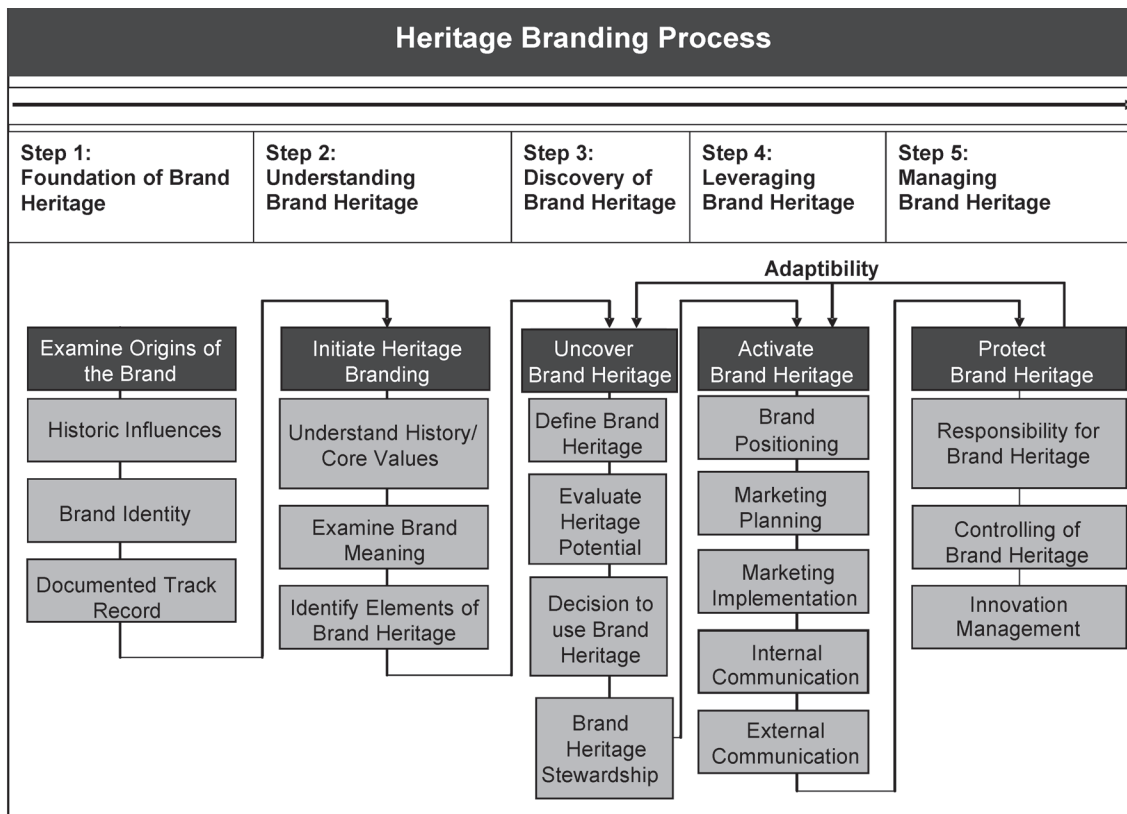
For marketing managers, our study may form the basis of a structured understanding of the perceived value of the heri-

tage aspect associated with their brand. A heritage branding approach draws attention to the interplay between strategic goals and consumer perception and to how elements of past, present, and future interpretations are crucial to building and sustaining meaningful brands.

Our results show that brand heritage is an important driver of both brand perception and consumer behavior. In particular, the effect on brand image is significantly strong; therefore, brand heritage affects the overall image of a brand in the eyes of the consumers. Moreover, the strong influence on the trustworthiness of a brand shows that consumers tend to trust a heritage brand more and perceive a lower risk of buying products from the given brand. As a result, they are willing to pay a higher price for traditional values such as credibility, continuity, and orientation, especially in times of financial crises and perceived uncertainty. Aspects such as bonding and credibility were shown to have the highest impact on brand heritage and have the potential to differentiate a heritage brand from others. Taken as a whole, our results can provide brand managers with explicit benchmarks for evaluating their brand's performance. When information about heritage performance is combined with the impact scores from regression estimates, managers have both the impact and performance information that they need to make strategic decisions on the basis on individual priority maps (Albers 2010). This finding may help to explain and manage the drivers and outcomes of brand heritage that were shown to be important drivers of brand perception and consumer behavior.

A comprehensive management approach dedicated to creating and maintaining a successful heritage brand with profitable longevity encompasses, as illustrated in Figure 3, the following steps. At first, it is important to examine the brand origins with regard to historic influences and key elements of a documented track record and the brand's evolution through time. Based on a better understanding of the historical foundations of the brand as well as its core values and the stakeholder associations, the key elements

**Figure 3**  
**The Process of Heritage Branding**



of a brand's heritage can be uncovered and leveraged. The activation of brand heritage is visible in all the elements of a marketing campaign, as the marketing mix can invoke the personal and cultural associations of history with regard to a particular brand. In luxury marketing or the automotive sector, visible product elements and aesthetics reflect traditional design elements that clearly differentiate the brand from its competitors. In terms of internal and external communication, a product or brand can be grounded with historically provable facts with a brand story that creates an aura of authenticity. This can be reflected by the sum of all customer touch points in an approach of experiential distribution and can be supported by a price-quality relationship that signals enduring quality over time.

As a final point, there is a main dilemma in the context of the protection of heritage brands to mention: in some cases, heritage brands can be seen as the oldest brands in a certain product category. Therefore, generations of consumers grew up with these brands; they are well established and have withstood the test of time and competition. However, heritage brands face the problem of being considered "old" brands and as not being on the "cutting edge" (Aaker 1996). Because of the need to appeal to the younger generations

and provide future consumers with a desire for the brand, a heritage branding management needs to maintain the benefits of heritage and to be innovative to overcome the age barrier associated with heritage brands. If a brand's unique personality is based in the past but has readjusted its brand identity, brand meaning, and core values with ongoing innovation to present and future consumer needs in a changing marketplace, its heritage is a key to the brand's continuing success and brand equity in the tension between past, present, and even the future.

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**APPENDIX**  
**Manifest Variables of the Reflective Measurement Models**

**Brand Image**

Image\_01 I like brand XY very much.

Image\_02 Brand XY is really likable.

**Customer Satisfaction**

Satisfaction\_01 I am very satisfied with brand XY.

Satisfaction\_02 Brand XY meets my expectations absolutely.

**Brand Trust**

Trust\_01 I trust brand XY.

Trust\_02 I rely on brand XY.

**Brand Loyalty**

Loyalty\_03 I recommend brand XY to my friends.

Loyalty\_01 I am loyal to brand XY.

Loyalty\_02 I do not intend to buy another brand than brand XY.

**Price Premium**

Price\_01 I am willing to pay a higher price to buy brand XY.

Price\_02 The products of brand XY are worth a higher price than other products.

**Buying Intention**

Intention I intend to buy brand XY again in the future.

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## Beitrag 3

### The Importance of Brand Heritage as a Key Performance Driver in Marketing Management

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## Original Article

# The importance of brand heritage as a key performance driver in marketing management

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**ABSTRACT** Corporate branding plays a crucial role in building a sustainable bond between the branded company and its customers. Because consumers' corporate brand image develops over time, previous experience with a company and its products/services are of particular importance. During recent years, the question of brand heritage and how past, present and future merge to create corporate brand image has gained growing interest in both marketing research and managerial practice. The aim of the present study is to probe the importance of brand heritage on consumer brand image construction based on attitudinal components of brand strength. Using a conceptual model focusing on the antecedents of brand heritage and its effects on attitudinal components of brand strength, we present the methodology and the results of our empirical study based on a PLS-PM approach. The results support the assumption that consumers search for authentic brands with genuine history in an increasingly global and dynamic marketplace.

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**Keywords:** corporate branding; brand heritage; brand image; brand strength; consumer attitude

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## INTRODUCTION

During turbulent times of economical crisis and uncertainty, corporate branding plays a particularly crucial role in building a sustainable bond between the branded company and its customers (Schultz and de Chernatony, 2002). Existing research shows that the image of corporate brands is important to firm success (Koll and von Wallpach, 2009). Because the process through which customers develop an image of a corporate brand occurs over time, *previous experiences with the company and its product/service* are of particular importance (Dowling, 2002). Consumers use earlier company-related experiences from multiple sources to create a framework for interpreting corporate image in the present (Rindell, 2007). Thus, the specific bond between a consumer and a brand must be regarded as an active relationship at the level of lived experience (Fournier, 1998). The contemporary significance and ‘kernel of meaning’ of a given brand result from collective interpretations by consumers and all stakeholders over numerous historical moments (Hatch and Rubin, 2006). Aaker (1996) suggests considering corporate brand associations and any aspect linked to the brand in relation to the consumer’s memory. Companies that *go back to their roots and identify what made them special and successful in the first place* (Aaker, 2004, p. 7) have a better understanding of how consumers’ past experiences connect with the company’s branding history or brand heritage (Aaker, 1996).

In recent years, brand heritage and how past, present and future merge as part of corporate brand image has gained growing interest in both marketing research and managerial practice. However, the time dimension of evolving corporate brand image has not been explicitly examined in the literature, and there has been little empirical insight into the conditions for and drivers of brand heritage or its causal effects

on consumer perception and behavior (Simms and Trott, 2006; Rindell, 2007). The aim of the present study is to examine the importance of brand heritage to consumer brand image construction based on attitudinal components of brand strength. Our article is structured as follows. First, we analyze the existing literature on the brand heritage construct and its elements; second, we develop a conceptual model focusing on the antecedents of brand heritage and its effects on attitudinal components of brand strength; and third, to explore the various dimensions of brand heritage and the influence on brand strength, we present the methodology and the results of our empirical study. On the basis of a PLS-PM approach, we identify the most important effects of perceived brand heritage on cognitive, affective and intentional brand strength. Finally, we discuss the implications of the results with regard to future research steps and managerial implications.

## THEORETICAL BACKGROUND

### Relevance, theory and definition of brand heritage

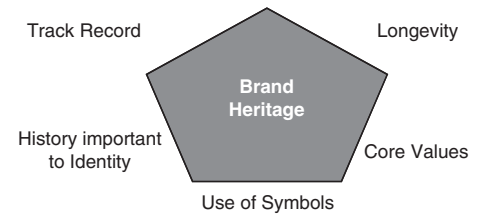
To be faithful to a tradition means to be faithful to its flame and not its ashes.  
Jaurès (1859–1914)

This above quotation by the famous French socialist leader describes the core of the construct of brand heritage. Especially in times of economic crisis and dynamics, consumers tend to prefer brands with a heritage that indicates their credibility, reliability and authenticity (Leigh *et al.*, 2006). Moreover, such brands use their longevity and sustainability to indicate that their stated core values and performance level are reliable. Hence, heritage creates value and leverage for a brand, especially in a turbulent global market (Aaker, 1996; George, 2004).



During recent years, the study of brands whose heritage is part of their corporate brand identity has drawn interest in both marketing research and practice (Brown *et al*, 2003a,b; Liebreuz-Himes *et al*, 2007; Urde *et al*, 2007). Different studies have shown that brand heritage is a basic driver of brand identity or brand image and can help increase brand equity (Aaker, 1996; Aaker and Joachimsthaler, 2000; Liebreuz-Himes *et al*, 2007; Rindell, 2010). According to Aaker (2004), heritage is an important value driver, especially for corporate brands; early roots add authenticity to brands and help them to differentiate themselves from others. The identity equity of such brands is extremely strong because their heritage helps *define these brands today and add value, especially when they are re-interpreted in a contemporary light* (Aaker, 2004, p. 7). Urde *et al* (2007) also define the brand heritage construct as part of corporate brand identity: (...) *a dimension of a brand's identity found in its track record, longevity, core values, use of symbols and particularly in an organisational belief that its history is important* (Urde *et al*, 2007, pp. 4–5). Balmer *et al* (2006) as well as Balmer (2009) illustrate based on monarchy's national heritage the royal five Rs (royal, regal, relevant, responsive, respected) as foundation of the five facets of corporate heritage brands (Urde *et al*, 2007). On the basis of this conceptualization, as illustrated in Figure 1, we can conclude that heritage brands not only constitute a different branding category with its own set of defining criteria but also necessitate a specific approach to effective management and leadership.

It is useful to distinguish heritage brands from other kinds of branding, such as retro brands, nostalgic brands or iconic brands, and to differentiate between heritage and history as general constructs. In accordance with Urde *et al* (2007), the construct of brand heritage has considerable overlap with related constructs as shown in Figure 2.



**Figure 1:** Key elements of brand heritage as conceptualized by Urde, Greyser and Balmer (2007).

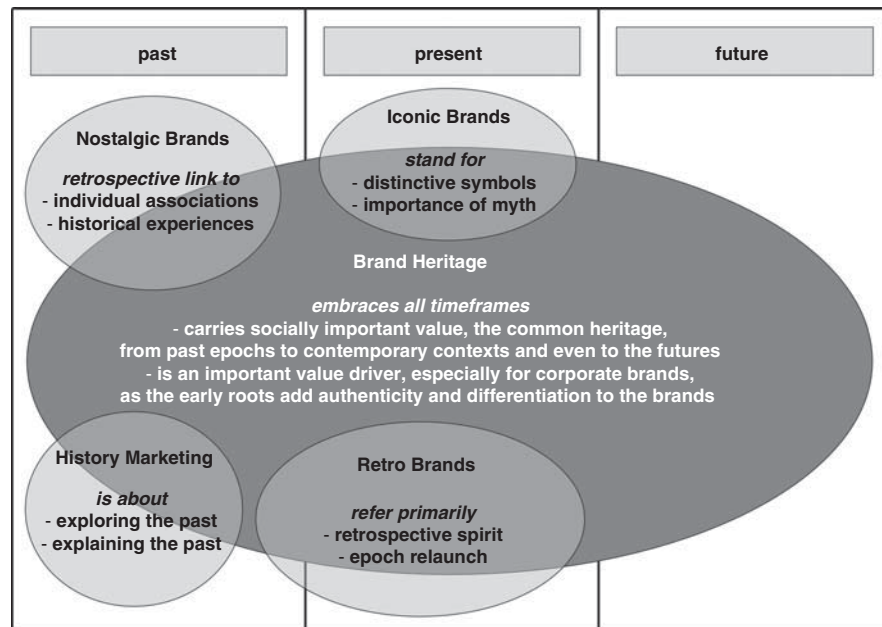
However, there are also significant differences at play. While those constructs are frequently linked with one time frame (often only the past), brand heritage is more comprehensive and holistic.

Unlike historical overviews that are grounded in the past or adopt a retrospective spirit, brand heritage embraces all time frames. A brand with a heritage draws from and clarifies the past and makes it relevant to current contexts and purposes (Urde *et al*, 2007).

## CONCEPTUAL MODEL AND RELATED HYPOTHESES

### Antecedents of brand heritage

Closely related to consumer brand awareness and brand image (Keller, 1998), the drivers of brand heritage can be seen as *perceptions about a brand as reflected by the brand associations held in consumer memory* (Keller, 1993, p. 3). A certain brand may satisfy functional and practical needs (for example, safety and quality) in addition to emotional and symbolic needs (for example, self-expression, social identification and status) (Bhat and Reddy, 1998; Del Rio *et al*, 2001). Heritage, as part of a brand's past, present and future identity, incorporates various elements of branding that can foster consumer loyalty, personal identification with a brand as consistent with one's behavior and self-image (Graeff, 1996), enhanced preference for a brand due to the perceived exclusivity and rareness (Verhallen, 1982; Lynn, 1991;



**Figure 2:** Distinction between brand heritage and relaxed brand constructs.

Pantzalis, 1995), and a desire for differentiation that can only be fulfilled when the consumption and use of a certain brand enhances status (Leibenstein, 1950; Vigneron and Johnson, 1999, 2004). On this basis, we refer to an integrated understanding of the brand heritage construct and its various elements including the statements of Buß (2007) and the remarks of Urde *et al* (2007). To explore the role of brand heritage in consumers' corporate brand image construction processes over time, we rely on attitudinal measures of brand strength with cognitive, affective and behavioral elements, as illustrated in Figure 3.

### Perceived brand strength and attitude towards the brand

Understood as the differential impact of brand knowledge on consumer responses to marketing efforts (Keller, 2007), brand strength reflects a brand's ability to differentiate its offerings from those of the competition and to create customer value through meaningful associations. To examine the

strength of a brand in terms of the consumer's overall attraction to it, for the purposes of this article, we consider brand strength to be the set of associations and behaviors displayed by a brand's customers (Srivastava and Shocker, 1991). The constitutive elements of perceived brand strength are manifold, and they include the category in which the brand operates, the culture and attitudes of the target audience, the competitive positioning and functional product attributes (Aaker and Biel, 1993). Taking into account the breadth of this range of considerations, we decided to concentrate on one of the most significant components of overall brand strength: the strength of consumer attitudes towards the brand (Aaker and Keller, 1990). As evaluations stored in the memory of consumers (Judd *et al*, 1991) and important guides for behavior, attitudes play a crucial role in influencing consumer choices. On the basis of a tripartite model including belief-based (cognitive), emotion-based (affective) and intention-based (behavioral) components (Rosenberg *et al*, 1969), attitudes

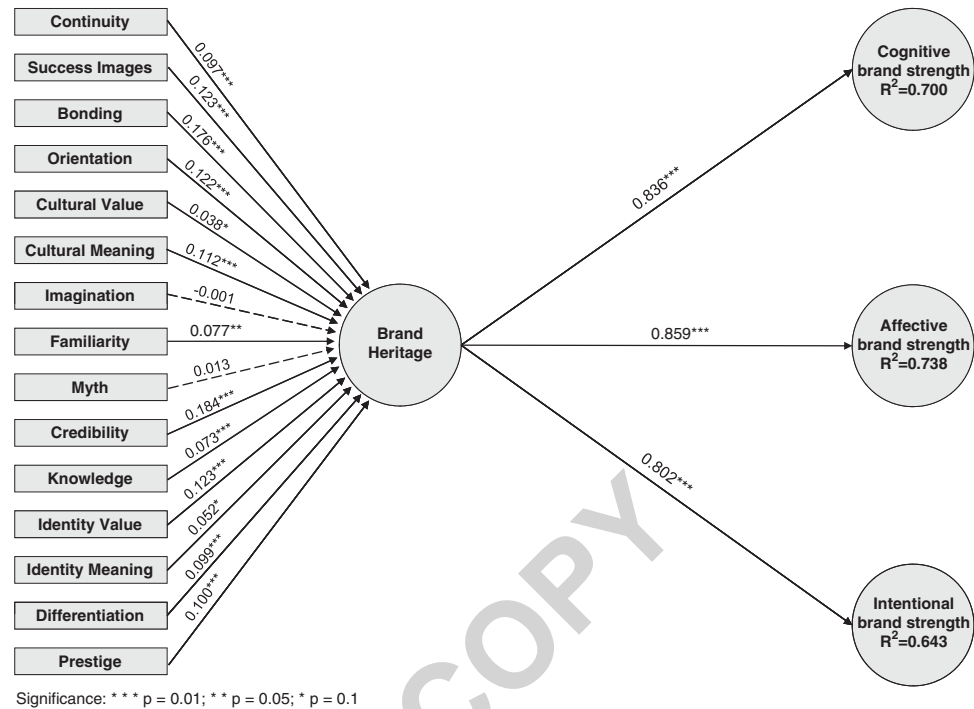


Figure 3: Drivers and outcomes of brand heritage.

are tendencies to evaluate an entity [attitude object] into some degree of favour or disfavour, ordinarily expressed in cognitive, affective and behavioural responses (Eagly and Chaiken, 1993, p. 155).

### The influence of brand heritage on attitudinal components of brand strength

In addressing the temporal dimension in evolving corporate brand images, Keller comments that ‘the power of a brand lies in what customers have learned, felt, seen, and heard about the brand as a result of their experiences over time’ (Keller, 2007, p. 59). Given the time dependence of consumer evaluations, attitudes and intentions that refer to actual feelings, cognitions and behavioral responses, the concept of brand heritage is of special importance. Because heritage brands are positioned based on their heritage over a long period of time and their support by customer-based beliefs,

consumers have memories of earlier company-related experiences that they use to interpret company-related experiences in the present (Rindell, 2007). Thus, for the sake of specificity, this article focuses on possible outcomes of brand heritage in terms of its suggested effects on the attitudinal components of brand strength. The cognitive component of brand strength includes perceptions, beliefs and knowledge of the heritage brand, including knowledge of product-related attributes and functional and symbolic benefits (Rossiter and Percy, 1987; Zeithaml, 1988). In contrast, the emotional or affective component of brand strength represents the degree to which a customer identifies and is personally involved with a company and the resulting degree of trust and commitment that the customer feels (Morgan and Hunt, 1994; Bendapudi and Berry, 1997; Garbarino and Johnson, 1999). Encompassing both cognitive and affective



elements, the behavioral or intentional component of brand strength addresses consumer purchase and loyalty intentions (Jacoby and Chestnut, 1978) as well as price sensitivity and willingness to recommend the brand (Zeithaml *et al.*, 1996). Focusing on how consumers perceive and evaluate brands over a period of time and suggesting that brand heritage positively affects all components of brand strength, we hypothesize the following:

**Hypothesis 1:** Brand heritage has a positive effect on cognitive brand strength and the consumer's knowledge and perception of the brand.

**Hypothesis 2:** Brand heritage has a positive effect on affective brand strength and the consumer's emotional attachment to the brand.

**Hypothesis 3:** Brand heritage has a positive effect on intentional brand strength and the consumer's intention to buy, brand loyalty, willingness to pay and recommendation behavior.

## METHODOLOGY

### The questionnaire

We used existing and tested reflective measures from previous studies on consumers' perceived brand strength (for example, Bemmaor, 1995; Francois and MacLachlan, 1995; Feldwick, 1996). Furthermore, we generated a measurement instrument for brand heritage based on formative indicators and the guidelines for index construction as described in the next section. All items were rated on a five-point Likert scale (*1 = strongly disagree, 5 = strongly agree*), and because we were able to collaborate with one of the world's leading automobile manufacturers, the items were related to that industry.

### Brand heritage measurement with formative indicators

There are four steps involved in constructing formative measurement following Diamantopoulos and Winklhofer (2001): content specification, indicator specification, indicator collinearity (multicollinearity) and external validity. It is extremely important to specify the domain of the content because the latent variable is determined by its formative indicators; failure to cover all facets of the construct will lead to the exclusion of relevant indicators and parts of the construct itself. Our understanding of brand heritage relies on the key elements of heritage proposed by Urde *et al.* (2007), as illustrated in Figure 1. We also used the multidimensional model by Buß (2007) to explore all five brand heritage content areas and specify the indicators. Furthermore, we arranged exploratory interviews with marketing researchers and managers to ensure that the statements developed by Buß (2007) fully captured the brand heritage construct's content domain. We generated the items based on guidelines regarding clarity, length, directionality, and the need to avoid ambiguity and jargon (for example, DeVellis, 1991; Spector, 1992). We check for multicollinearity and evaluate the external validity of the formative indicators in the results sections.

### The sample

We developed a web-based survey using a snowball sampling method to investigate the research model. The online-based recruitment of interviewees was organized using an Internet form sent to Internet forums and to private customers via personalized emails. Each form included an invitation to fill out the survey. In the summer of 2009, a total of 658 questionnaires were received. We excluded 200 respondents who did not know or use the brand. This process yielded a final sample of 458 valid cases.

## RESULTS AND DISCUSSION

### Antecedents and consequences of brand heritage

In our exploratory study, examining the drivers and outcomes of brand heritage (including formative and reflective measures), we used PLS structural equation modeling to empirically test our hypotheses. We used SmartPLS 2.0 (Ringle *et al*, 2005) with mean replacement (path weighting scheme) and a bootstrapping procedure (probing individual sign changes). Our PLS path model for antecedents/drivers and consequences/reflectors of brand heritage determines the indicators that create brand heritage using formative measurement and the three types of brand strength using reflective measurement, as illustrated in Figure 3. The results are discussed in the following sections.

#### Evaluation criteria for the results of PLS path modeling

We followed the suggestions presented by Chin (1998) and used his catalogue of

non-parametric criteria for evaluating PLS estimates. In general, an assessment of a structural model's properties is only worthwhile if the outer and inner measurement models satisfy certain minimum requirements (Henseler *et al*, 2009).

#### Evaluation of the formative measurement model

Table 1 presents the variables defined as formative indicators for the construct of brand heritage and reports each variable's variance inflation criterion (VIF). The maximum variance inflation value was 3.367 and clearly lies below the common threshold of 10 (Diamantopoulos and Winklhofer, 2001). Thus, multicollinearity does not pose a problem in our study.

In addition, we tested the external validity of each formative indicator, examining whether they were significantly correlated with any global items that summarize the essence of brand heritage. Therefore, an additional statement

**Table 1:** Manifest variables, test for multicollinearity and test for external validity of the formative measurement model

<i>Brand heritage: Formative indicators</i>		<i>VIF</i>	<i>Spearman's rank correlation coefficient</i>
BH_Continuity	Brand XY is very continuous.	1.776	0.338***
BH_Success_Images	Brand XY is related to images of success.	2.353	0.452***
BH_Bonding	I am bonded to brand XY.	3.367	0.404***
BH_Orientation	Brand XY sets the valuation standard for other brands.	1.927	0.397***
BH_Cultural_Value	The products of Brand XY are a part of national treasure.	1.919	0.396***
BH_Cultural_Meaning	The products of brand XY promote a certain way of living.	2.165	0.384***
BH_Imagination	I have an absolutely clear imagination of brand XY.	1.764	0.468***
BH_Familiarity	My familiarity with brand XY is very high.	2.950	0.508***
BH_Myth	Brand XY has a strong cultural meaning.	2.058	0.576***
BH_Credibility	Brand XY represents honesty and truthfulness.	1.724	0.331***
BH_Knowledge	Brand XY is highly known in the society.	1.645	0.363***
BH_Identity_Value	Brand XY has a strong brand identity.	2.347	0.486***
BH_Identity_Meaning	If somebody praises brand XY, to me, it is a personal compliment.	2.237	0.323***
BH_Differentiation	Brand XY is unique compared to other brands.	2.222	0.417***
BH_Prestige	Brand XY has a very good reputation.	2.247	0.426***

Significance: \*\*\*=0.01.

was developed: ‘In my opinion, brand XY is a brand with heritage’. As shown in Table 1, all indicators are significantly correlated with this statement, supporting their external validity. With reference to recent insights in the proper evaluation of formative measurement models (Cenfetelli and Bassellier, 2009; Hair *et al.*, 2011), all outer loadings are significant and there are no (significant) negative outer weights.

#### *Evaluation of the reflective measurement models*

Table 2 presents the manifest variables that are reflective indicators for the three measurement models.

Our results show significant loadings with scores higher than 0.7 for all items. This is evidence of indicator reliability. Moreover, the PLS model estimation reveals that all reflective model constructs exhibit satisfactory results in terms of internal consistency (Bagozzi and Yi, 1988). The average variance extracted (AVE) estimates range from 64 per cent to 68 per cent, the Cronbach’s  $\alpha$ s range from 0.72 to 0.82 and the composite reliability values range from 0.84 to 0.88, as shown in Table 3. We also assessed discriminant validity using the Fornell–Larcker criterion; the AVE of each latent variable should be greater

than the latent variable’s highest squared correlation with any other latent variable (Fornell and Larcker, 1981). Each of the tested latent variables satisfies the criterion requirements, hence suggesting discriminant validity.

#### *Evaluation and discussion of the structural model*

As illustrated in Figure 3, the coefficients of determination of the endogenous latent variables ( $R^2$ ) for cognitive brand strength, affective brand strength and intentional brand strength are high at 0.70, 0.74 and 0.64, respectively. To evaluate the significance of the path coefficients, we used a non-parametric bootstrapping procedure (case wise replacement and individual sign changes), providing the path estimates in Figure 3. Moreover, we assessed the predictive relevance of the PLS using blindfolding procedures (cross-validated redundancy and omission distance of 7) (Tenenhaus *et al.*, 2005) to measure Stone–Geisser  $Q^2$  (Geisser, 1974; Stone, 1974). In Hypotheses 1–3, we postulate that brand heritage has a positive effect on components of brand strength. The impact of brand heritage on brand strength is positive and significant ( $P < 0.01$ ). As presented in Table 4, the Stone–Geisser  $Q^2$  values are greater than 0.4, which indicates that our introduced model has high predictive

**Table 2:** Manifest variables of the reflective measurement models

<i>Cognitive brand strength</i>	
Cog n_01	Brand XY is very famous.
Cog n_02	In my opinion the quality of brand XY is very high.
Cog n_03	The brand XY is very distinctive.
<i>Affective brand strength</i>	
Aff ec_01	The brand XY suits me completely.
Aff ec_02	The brand XY keeps to its promise.
Aff ec_03	I find brand XY very pleasant.
<i>Intentional brand strength</i>	
Int ent_01	I intend to buy brand XY in the future.
Int ent_02	I am very faithful to brand XY.
Int ent_03	The products of brand XY are worth a higher price than other products.
Int ent_04	I would recommend brand XY to my friends.

**Table 3:** Assessing the reflective measurement models

	Factor loadings	AVE (%)	Cronbach's $\alpha$	Composite reliability	Fornell-Larcker criterion (AVE > maximum $Corr^2$ )
Cognitive brand strength	0.749–0.829	64.19	0.720	0.843	0.64 > 0.56
Affective brand strength	0.774–0.874	67.53	0.759	0.862	0.68 > 0.61
Intentional brand strength	0.742–0.840	64.31	0.815	0.878	0.64 > 0.61

**Table 4:** Assessing the structural model

<i>Construct</i>	<i>Cognitive brand strength</i>
$R^2$	0.700
$Q^2$	0.441
$q^2/f^2$ Brand heritage	0.789/2.333
<i>Construct</i>	<i>Affective brand strength</i>
$R^2$	0.738
$Q^2$	0.495
$q^2/f^2$ Brand heritage	0.980/2.817
<i>Construct</i>	<i>Intentional brand strength</i>
$R^2$	0.643
$Q^2$	0.405
$q^2/f^2$ Brand heritage	0.681/1.801

relevance. Thus, our empirical results provide full support for all three hypotheses.

## NEXT RESEARCH STEPS AND MANAGERIAL IMPLICATIONS

### Theoretical contributions and further research

In sum, our results clearly mark the starting point for future research on and managerial interest in brand heritage; consumers seem to be searching for authentic brands with genuine history in an increasingly global and dynamic marketplace. A better understanding of brand heritage and its related effects on consumer perceptions will be valuable for both researchers and marketers. Especially in highly dynamic times in which purchase decisions are associated with certain risks, the aspect of heritage provides consumers with a feeling of security and well-being.

The primary goal of this article was to examine the importance of brand heritage to consumer brand image construction based on attitudinal components of brand strength. Relating to existing definitions and conceptualizations of the brand heritage construct, we specifically concentrated on the importance of brand heritage as key performance driver in marketing management. Overall, concerning the question of how consumers perceive and evaluate brands over a period of time and suggesting that brand heritage positively affects all components of brand strength as determining factor of consumer purchase and loyalty intentions, our empirical study reveals: First, the construct of brand heritage can be measured along 15 management-oriented indicators. Second, our results show significant causal relationships between the dimensions of brand heritage and the cognitive, affective and intentional attitudes of consumers towards a brand. Hence, consumers attach importance to the heritage of a brand and show for example, a lower price sensitivity as well as a higher willingness to buy and recommend the given brand. Third, the dimensions of perceived heritage value differ in their relative impact upon brand strength components and outcomes. In sum, this article builds upon and extends well-established foundations in the field of brand heritage as it provides deeper insights in quantifiable effects that originate from the value that heritage brands have in the consumer's mind and heart.

Even though our results are only initial empirical hints, they should be explored in further research in different ways. For instance, a study focusing on diverse user groups (for example, B2C and B2B samples) may lead to interesting results in comparing differences and similarities in the perception of a given heritage brand. Moreover, the importance of the heritage and tradition of a brand may vary in times of economic crises versus economic well-being. In this context, a longitudinal study should compare the causal relationship of brand heritage to consumer attitude and behavior over time with reference to different heritage brands. The restriction of our study to the automotive context may have limited the extent to which the results and conclusions herein can be generalized to consumer purchasing attitudes and behaviors. Therefore, extension to and comparison with other product categories – including brands that cannot be considered heritage brands – could enhance the conceptualization, measurement and management of the construct of brand heritage. In sum, we hope that this study is the starting point for future research in the area of brand heritage, as the rise of retro, history and nostalgia are everywhere apparent, and consumers seem to be searching for authentic products with genuine history in an increasingly global marketplace.

### Managerial implications

Among marketing managers, our study may create a more structured understanding of heritage as associated with perceived brand strength. A heritage branding approach considers the interplay between strategic goals and consumer perception and how elements of past, present and future interpretations are crucial to building and sustaining meaningful brands.

To provide brand managers with explicit benchmarks for evaluating their

brand's performance, we used PLS-based importance performance analysis (IPA) to demonstrate the diagnostic value of our model (Slack, 1994). This analysis shows the relevance of each dimensions of perceived heritage value, potentially helping brand managers develop effective brand programs (Martilla and James, 1977). Our IPA of the outcome variables, the components of brand strength, was centered on the importance and performance of the 15 drivers of perceived heritage. The total effects of the estimated relationships determine the importance of the indicators (or manifest variables) (Völckner *et al*, 2011), computed as outer weights multiplied by the path coefficient. After rescaling the indicators and unstandardized latent variable scores to range from 0 to 100 for ease of interpretation, we computed their averages as performance values (Fornell *et al*, 1996; Anderson and Fornell, 2000). Figure 4 illustrates the results of the IPA for affective brand strength using a priority map.

To optimize the allocation of resources, brand managers should prioritize driver indicators with relatively greater importance and relatively lower performance (Völckner *et al*, 2011). In our case, for instance, the results show that if the performance value of *bonding* increases from 50.44 to 51.44, affective brand strength increases by 0.16 points from 63.64 to 63.80, whereas an increase in the performance value of *cultural value* increases affective brand strength by just 0.03 points. As shown in the priority map, our IPA identifies four segments of indicators that can be used in resource allocation. Of the drivers of segment A, *bonding* and *credibility* should be prioritized first. These should be followed *differentiation* and *success images* as drivers of segment B. The low performance and high importance level of these segments indicates that investments in these areas can give



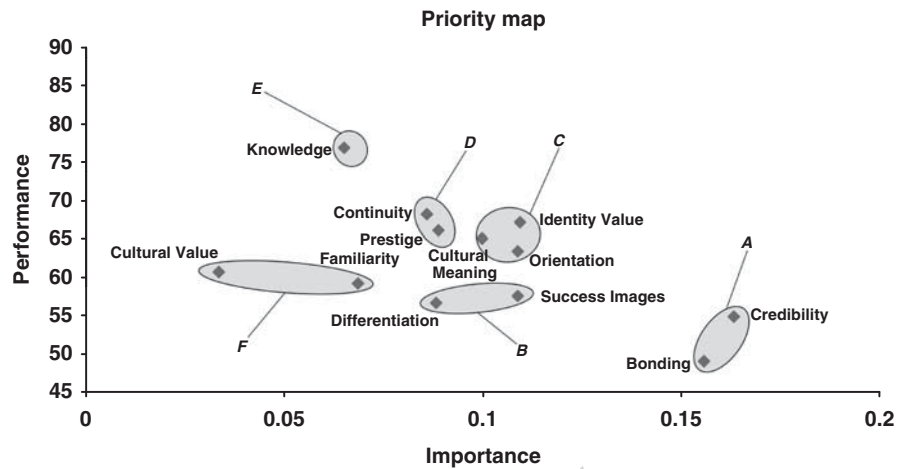


Figure 4: Results of the importance performance analysis for affective brand strength in a priority map.

the greatest positive impact on consumer perceptions of affective brand strength. Managers of this particular brand should concentrate their marketing activities (for example, their communication policy) on those segments. In contrast, managerial efforts in segments E and F will be needed to enhance consumer perceptions regarding affective brand strength, presumably investing a great deal of human and financial resources. In general, managers will benefit from allocating resources to the most important drivers with low performance rather than distributing the resources based on the ‘watering can’ principle (Tyrell and Okrant, 2004).

Finally, in an ever-changing marketplace, managers of heritage brands must find the right balance between respecting a brand’s authentic personality as rooted in the past and readjusting its brand identity, brand meaning and core values with ongoing innovations relevant to present and future consumer needs. Because of the tension that can exist between the past, present and future, finding the right balance and ultimately cultivating the heritage of a brand is key to consumer brand image construction and to the continuing success of brands.

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## **Beitrag 4**

### **The Impact of Brand Heritage on Customer Perceived Value**

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# THE IMPACT OF BRAND HERITAGE ON CUSTOMER PERCEIVED VALUE

*Klaus-Peter Wiedmann, Nadine Hennigs, Thomas Wuestefeld and Steffen Schmidt*

## ABSTRACT

In a tumultuous global economy characterized by high dynamics, uncertainty and massive consumer disorientation, the origin and heritage of a brand is something that consumers are increasingly aware of. In both marketing research and practice, the study of brands with a heritage as part of their corporate brand identity has gained growing interest. However, better knowledge of the conditions and drivers of brand heritage as well as its effects on customer value and consumer behavior is still needed. Reasoning this, the aim of the present study is to examine the antecedents and outcomes of brand heritage with special focus on the value as perceived by the customer. Our study concentrates on the luxury industry where the origin and heritage of a brand is something that consumers are increasingly aware of. Based on a structural modeling approach, our results reveal significantly strong effects of brand heritage on the perceived economic value, the perceived functional value, the perceived affective value, and the perceived social value of a brand; thus, brand heritage affects the overall perceived value in the eyes of the consumers.

*Keywords: Brand Heritage, Brand Management, Customer Perceived Value, Luxury Industry, Partial Least Squares*

## INTRODUCTION

In a tumultuous global economy characterized by high dynamics, uncertainty and massive consumer disorientation, consumers tend to prefer brands with a heritage because these brands are perceived to be more credible, trustworthy and reliable. The heritage aspect of a brand adds the association of depth, authenticity and credibility to the brand's perceived value. With reference to consumers to whom heritage is meaningful, the heritage of a brand can result in an intensified brand loyalty and the willingness to accept higher prices (e.g., Urde, Greyser & Balmer 2007). In both marketing research and practice, the study of brands with a heritage as part of their corporate brand identity has gained growing interest (Brown, Kozinets & Sherry Jr. 2003b; Liebrechz-Himes, Shamma & Dyer 2007). However, better knowledge of the conditions and drivers of brand heritage as well as its effects on customer perceived value and consumer behavior is still

needed. Reasoning this, the aim of the present study is to examine the antecedents and outcomes of brand heritage, focusing on the functions or value of the brand as perceived by consumers. As specific context, we have chosen the luxury industry because the idea of heritage is of special importance in this domain: Living in a digital age, reinterpreting tradition and the question of how to link past and present in a more meaningful way is the key challenge for luxury brands. Most luxury brands are based on craftsmanship in family business with well-known founding fathers; their history is deep-rooted and authentic what creates the heart of brand heritage. Emotions from the past are a vital part of luxury brand positioning in a modern world as Karl Lagerfeld, head designer and creative director for Chanel, states: “*Make a better future by developing elements from the past.*” In a turbulent economy, the origin and heritage of a luxury brand is something that consumers are increasingly aware of. If and to what extent consumers assign value to the heritage aspect of luxury brands is the research focus of this study. Our paper is structured as follows: first, we analyze existing literature on the brand heritage construct and its elements; second, we develop a conceptual model focusing on the value-based antecedents and consequences of brand heritage; and third, to explore the various dimensions and effects underlying the perceived values of luxury brands, we present the methodology and results of our empirical study. Based on a structural modeling approach, we identify the most important effects on the perceived value of a luxury brand. Finally, the results of our study are discussed with regard to future research and managerial implications.

## **THEORETICAL BACKGROUND**

### **Definition of Brand Heritage**

In contrast to an historical overview that is grounded only in the past, traditions and brand heritage embrace not only the time frame “the past,” but also “the present,” and “the future.”

Born and nurtured over decades or even centuries, heritage brands have had the time to build a meaningful past and having a heritage helps to make a brand relevant to the present and prospectively to the future. A brand that is infused with a heritage stands for authenticity, credibility and trust and can provide leverage for that brand, especially in global markets (Aaker 1996; George 2004). The brand heritage construct can be defined as part of a corporate brand identity: “ (...) *a dimension of a brand’s identity found in its track record, longevity, core values, use of symbols and particularly in an organisational belief that its history is important*“ (Urde, Greyser & Balmer 2007, p. 4-5). Following their conceptualization, heritage brands constitute a different branding category with its own set of defining criteria and necessitate a specific approach to effective management and leadership. According to Aaker (2004), heritage is an important value driver, especially for corporate brands, as the early roots add authenticity and differentiation to the brands. The identity equity in such brands is extremely strong, the heritage helps “ (...) *define these brands today and add value, especially when they are re-interpreted in a contemporary light*” (Aaker 2004, p. 7).

### **Elements of Brand Heritage**

Based on the definition of brand heritage and its distinction from related constructs, it is useful to consider five major elements that indicate whether and to what extent heritage is present or potentially found in a brand: The element *track record* is related to the established performance that the brand or the company has been connected with, such as certain values and promises over time (e.g. Volvo is continuously synonymous with safety) (Urde 1997). The second element of brand heritage, *longevity* is of special importance for large multi-generational family-owned companies such as Ford or Anheuser Busch and reflects other brand heritage elements, including sustainability and consistency (Urde, Greyser & Balmer 2007, p. 9). *Core values* encompass the

basic values the brand is associated with. Like a promise or covenant in external communication, these values underline and help to define corporate strategy and are an integral part of the brand identity (Urde 1994; Kapferer 2004; Lencioni 2002). The *use of symbols* is related to logos or design and illustrates the brand's core meaning, e.g. the Mercedes star or the leaper of Jaguar (Urde, Greyser & Balmer 2007, p. 10). The fifth component asks *is history important to identity*. Companies have to sense their own history as being crucially important to their identity. It is absolutely essential that they know who and what they are. This understanding should also be a key part of communication, advertising and the marketing mix (Brown, Kozinets & Sherry Jr. 2003a).

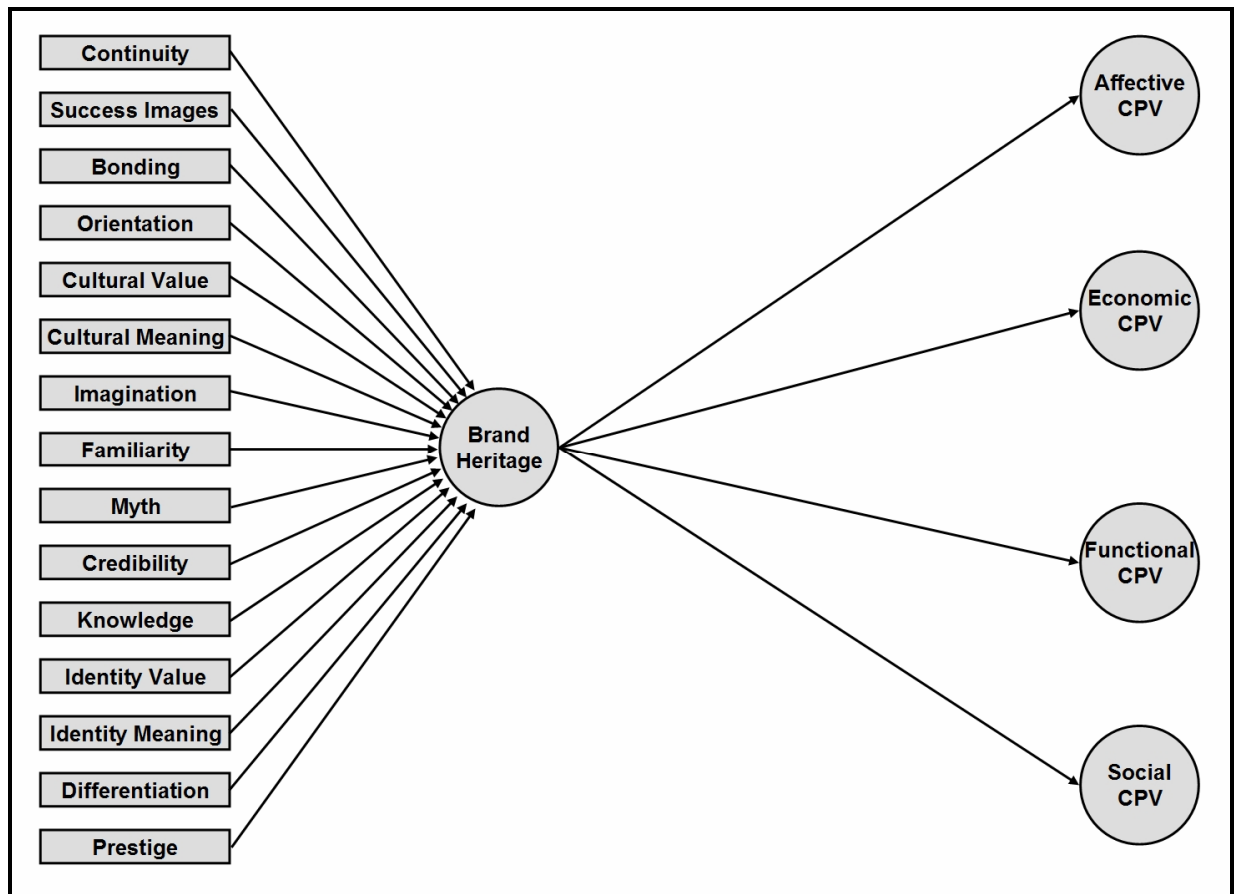
## **CONCEPTUAL MODEL:**

### **BRAND HERITAGE AND EFFECTS ON CUSTOMER PERCEIVED VALUE**

As stated above, heritage helps to make a brand more authentic, credible and trustworthy and can provide leverage for that brand. Additionally, a brand with a heritage creates and confirms expectations about future behavior to stakeholder groups and makes a promise that the brand will continue to deliver on these commitments (e.g., Aaker 1996; George 2004). For this reason, the brand heritage construct can add consumer perceived value and can minimize consumers' buying risk (e.g., Muehling & Sprott 2004). This additional value can be an important driver for the construct buying intention, which has been analyzed in different empirical studies (e.g., del Rio, Vázquez & Iglesias 2001; Faircloth, Capella & Alford 2001). As illustrated in Fig. 1, in order to enhance current understanding of value perception in view of a heritage brand, the question of what really adds value in consumer's perception is defined in this paper through the existence of four latent customer perceived value dimensions.



**Fig. 1** The Conceptual Model – Drivers and Outcomes of Brand Heritage



Drawing on, integrating, and extending the work of Park et al. (1986), Sheth et al. (1991), Ulaga (2003), Woodall (2003), Holbrook (1999; 2005), and Heard (1993–94) on the conceptualization of customer value, in accordance to Smith & Colgate (2007), we concentrate on four major types of customer perceived value:

***Economic Value.*** The economic dimension of customer value addresses direct monetary aspects such as price, resale price, discount, investment etc. It refers to the value of the product expressed in dollars and cents, to what is given up or sacrificed to obtain a product (e.g., Ahtola 1984; Chapman 1986; Mazumdar 1986; Monroe & Krishnan 1985). Similar to firms, consumers also try to minimize the costs and other sacrifices that may be involved in the purchase, owner-

ship, and use of a product (Smith & Colgate 2007). Overall, the economic value refers to the cost/sacrifice in terms of (1) economic costs, such as product price, operating costs, switching costs, and opportunity costs; (2) psychological–relational costs including cognitive difficulty/stress, conflict, search costs, learning costs, psychological switching costs, and psychological relationship costs, such as attachment; (3) the personal investment of customers, the effort, and energy consumers devote to the purchase and consumption process; and (4) the risk (personal risk, operational risk, financial risk, or strategic risk) perceived by customers in buying, owning, and using a product (Smith & Colgate 2007).

**Functional Value.** The functional dimension of customer value represents the core benefit and basic utilities such as e.g. the quality, the uniqueness, the usability, the reliability, and durability of a certain product (Sheth et al. 1991). In general, a product or a service is designed to perform a particular function to satisfy consumer needs defined by the physical-chemical-technical (e.g., technical superiority), concrete or abstract product/service dimensions (e.g., Park et al. 1986). Consumers expect the item they buy to work right, to look good, to last a long time, and to perform as expected and as promised (e.g., Fennel 1978). Following Woodruff (1997), functional value encompasses three key facets (1) correct, accurate, or appropriate features, functions, attributes, or characteristics (such as aesthetics, quality, customization, or creativity); (2) appropriate performances (such as reliability, performance quality, or service–support outcomes); and (3) appropriate outcomes or consequences (such as strategic value, effectiveness, operational benefits, and environmental benefits) (Smith & Colgate 2007).

**Affective Value.** The affective dimension of customer value refers to the experiences, feelings, and emotions a certain brand or product provides to the consumer in addition to its functional utility (Hirschman & Holbrook 1982; Sheth et al. 1991, Westbrook & Oliver 1991). Especially luxury products are likely to provide such subjective intangible benefits (Dubois & Laurent

1994). Research has repeatedly identified the emotional responses associated with the luxury consumption, such as sensory pleasure and gratification, aesthetic beauty, or excitement (Benarosh-Dahan 1991; Fauchois & Krieg 1991; Roux & Floch 1996; Vigneron & Johnson 2004). Hence, affective value describes the perceived subjective utility and intrinsically pleasing properties acquired from the purchase and consumption of a brand to arouse feelings and affective states, received from the personal rewards and fulfillment (Sheth et al. 1991; Westbrook & Oliver 1991).

***Social Value.*** The social dimension of customer value focuses a customer's personal orientation towards a brand or product and addresses personal matters such as consumer's self-concepts, self-worth or self-identity value (e.g., Vigneron & Johnson 2004; Hirschman & Holbrook 1982). Consumers may associate psychological meaning to a product or they use certain (luxury) brands to integrate the symbolic meaning into their own identity (Holt 1995; Vigneron & Johnson 2004) or to support, express, and develop ones own identity, personality, tastes, and values (Douglas & Isherwood 1979; Hirshman 1988; Dittmar 1994). In addition to the personal meaning a social component of customer value and the prestige, status, or image of a certain brand or product is of special importance. For example the consumption of luxury goods appears to have a strong social function (Vigneron & Johnson 1999, 2004; Bearden & Etzel 1982; Brinberg & Plimpton 1986; Kim 1998).

In the current study, a consumer's perceived heritage of a brand is expected to influence the economic, functional, affective, and social responses toward the brand. Therefore, we suggest that brands that are infused with heritage have a positive influence on all dimensions of customer value perception. Against this background, the following research hypotheses were developed in relation to the foregoing discussion:

*H<sub>1</sub>: Brand heritage has a positive effect on the perceived economic value of a brand.*

*H<sub>2</sub>: Brand heritage has a positive effect on the perceived functional value of a brand.*

*H<sub>3</sub>: Brand heritage has a positive effect on the perceived affective value of a brand.*

*H<sub>4</sub>: Brand heritage has a positive effect on the perceived social value of a brand.*

## **METHODOLOGY**

### **The Questionnaire**

To measure the dimensions of customer perceived outcomes, we used already existing and tested reflective measures (e.g., Holbrook 1999; Woodall 2003; Woodruff 1997; Smith & Colgate 2007). In contrast to covariance-based structural models, such as LISREL, which rely on maximum likelihood estimation and claims a minimum of three items per factor, PLS places minimal demands on measurement scales (e.g., Jeffers, Muhanna & Nault 2008; Im & Rai 2008). Even if methodologists and researchers should be vary of single- or double-item measures, empirical studies demonstrated that meaningful reliability estimates can be calculated for single- or double-item measures (Loo 2002). Especially in the context of a complex questionnaire design, this is a particular advantage of the PLS analytic technique and its using algorithm (Mitchell & Nault 2007). For our specific study context of brand heritage, we selected the items as specified by Bachmann (2010). Specifically, we used these statements that were shown to have the strongest effect in a heritage-infused branding context and adapted them with reference to our research focus. Hence, to develop a PLS-applicable double-item scale for each dimension of customer perceived value, we extracted those two items with the strongest effect on the construct validity and the highest explanatory power.

To measure brand heritage based on formative indicators as discussed below, we relied on the well-examined formative scale from existing research as developed by Wiedmann et al. (2011a and 2011b). They investigated a reliable and valid multidimensional framework (includ-

ing a valid measurement model of formative indicators of brand heritage) of value-based drivers and consequences of brand heritage in an automotive context.

All items were rated on a five-point Likert scale (*1=strongly disagree, 5=strongly agree*) and specified to a luxury brand context referring to CHANEL, one of the world's leading luxury brands with a long traditional brand history and a broad product range encompassing both haute couture fashion as well as accessible goods such as accessories, makeup, jewelry, fragrances, skincare etc.

The first version of our questionnaire was face validated twice using exploratory and expert interviews, and it was pretested with 20 respondents to check the reliability and the validity of the measurement as well as the quality of the items used.

### **Brand Heritage Index Construction with Formative Indicators**

Brand Heritage is the focal construct for which we generated a measurement instrument based on formative indicators. While there is an established research history in developing and validating multi-item scales based on reflective measures, the index construction using formative measure has received little attention. For constructing indexes based on formative indicators, we followed the four steps guidance by Diamantopoulos and Winklhofer (2001): content specification, indicator specification, indicator collinearity and external validity. For covering all facets of the construct, it is extremely important to specify the domain of the content because the latent variable itself is determined by its formative indicators. The core elements of heritage proposed by Urde et al. (2007) constitute our understanding of brand heritage. Therefore, the items used as indicators were selected to cover the entire scope of the five brand heritage elements. Moreover, we used the multidimensional model of Buß (2007) to specify our indicators. To evaluate whether the refined dimensions of Buß (2007) fully capture the brand heritage construct's domain of con-

tent, exploratory interviews with marketing researchers and managers were conducted. The items were generated based on guidelines regarding clarity, length, directionality, and the need to avoid ambiguity and jargon (e.g., DeVellis 1991; Spector 1992).

### The Sample

To investigate the research model, we developed a web-based survey with a snowball sampling method in Germany via email invitations and links on selective web pages (e.g., facebook profile pages) with the invitation to actively contribute to the survey. In winter 2010, a total of 287 valid questionnaires were received. To ensure sufficient brand usage knowledge, 47 respondents were excluded who have not bought or used the brand at least once. A final sample of 240 cases was received. Tab. 1 describes the sample characteristics.

**Tab. 1** Demographic Profile of the Sample

Variable		n	%
<b>Age</b>	16 – 24 years	83	34.6
	25 – 29 years	39	16.3
	30 – 39 years	31	12.9
	40 – 49 years	35	14.6
	50 years +	52	21.7
<b>Gender</b>	Male	59	24.6
	Female	181	75.4
<b>Marital status</b>	Single	135	56.3
	Married	81	33.8
	Widowed	2	0.8
	Divorced	13	5.4
	No answer	9	3.8
<b>Education</b>	Not graduated from high school	3	1.3
	Lower secondary school	9	3.8
	Intermediate secondary school	50	20.8
	A-Levels	114	47.5
	University Degree	64	26.7
<b>Occupation</b>	Full time	95	39.6
	Part-time	23	9.6
	Pensioner / retiree	14	5.8

Variable	n	%
House wife / husband	9	3.8
Job training	10	4.2
Student	81	33.8
Seeking work	2	0.8
No answer	2	0.8

Respondents were mainly aged 16 to 24 years and those with higher education and those who are female and single were over-represented, which is indicative of the fact that many female students are particularly interested in luxury brand like CHANEL. The higher percentage of young to middle-aged and female consumers in the sample may also be attributed to the greater Internet usage of young to middle-aged people and the fact that females tend to show a higher interest in our product context of luxury brands. Even if not representative, the study sample offers a balanced set of data to empirically test the hypothesized relations as shown in our conceptual model. Based on the perception and experiences of actual brand users, our sample ensures stable opinion patterns in terms of analyzing the suggested relations between brand heritage and the dimensions of customer perceived value.

## **RESULTS AND DISCUSSION**

### **Value-based Antecedents and Consequences of Brand Heritage**

In our study, we used PLS structural equation modeling for examining the drivers and outcomes of brand heritage (including formative and reflective measures) and so empirically tested our hypotheses. We used the analysis software SmartPLS 2.0 (Ringle et al. 2005) with no replacement and a bootstrapping procedure (probing individual sign changes). Our PLS path model for antecedents/drivers and consequences/reflectors of brand heritage determines the indicators that create brand heritage using formative measurement and the four types of consumer

perceived value using reflective measurement, as illustrated in Fig. 1. The results are discussed in the following sections.

### ***Evaluation Criteria for the Results of PLS Path Modeling***

Following the suggestions presented by Chin (1998), we used his catalogue of non-parametric criteria for evaluating PLS estimates. In particular, an assessment of a structural model's properties is only worthwhile if the outer and inner measurement models satisfy certain minimum requirements (Henseler, Ringle & Sinkovics 2009). The structural equation modeling evaluation refers to the reliability and validity of the measures, the relationships between measures and constructs and the interpretation of path coefficients (i.e., the links between different constructs) in a final model (Sarstedt, Schwaiger & Ringle 2009).

### ***Evaluation of the Formative Measurement Model***

Tab. 2 presents the variables defined as formative indicators for the construct of brand heritage. The maximum variance inflation value was 3.21 (cf. Tab. 2) and clearly lies below the common threshold of 10 (Diamantopoulos & Winklhofer 2001). The results suggest that multicollinearity does not pose a problem in our study. Regarding the question of external validity of each formative indicator, we examined whether they were significantly correlated with any global items that summarize the essence of brand heritage. For that reason, a semantic differential was applied for rating one global item on a seven point scale: “*not at all traditional – very traditional*”. As shown in Tab. 2, all formative indicators are significantly correlated with this global item, supporting their external validity.



**Tab. 2** Manifest Variables, Test for Multicollinearity and External Validity of the Formative Measurement Model

Brand Heritage: Formative Indicators	Manifest Variables	Variance Inflation Value (VIF)	Spearman's rank corre- lation coef- ficient
BH_Continuity	<i>"This brand is very continuous."</i>	1.361	0.261***
BH_Success_Images	<i>"This brand is related to images of success."</i>	1.517	0.125**
BH_Bonding	<i>"I am bonded to this brand."</i>	2.967	0.083*
BH_Orientation	<i>"This brand sets the valuation standard for other brands."</i>	1.686	0.164***
BH_Cultural_Value	<i>"The products of this brand are a part of national treasure."</i>	1.603	0.232***
BH_Cultural_Meaning	<i>"The products of this brand promote a certain way of living."</i>	1.631	0.194***
BH_Imagination	<i>"I have an absolutely clear imagination of this brand."</i>	1.534	0.286***
BH_Familiarity	<i>"My familiarity with this brand is very high."</i>	3.205	0.144**
BH_Myth	<i>"This brand has a strong cultural meaning."</i>	1.451	0.400***
BH_Credibility	<i>"This Brand represents honesty and truthfulness."</i>	1.590	0.205***
BH_Knowledge	<i>"This brand is highly known in the society."</i>	1.161	0.108**
BH_Identity_Value	<i>"This Brand has a strong brand identity."</i>	2.179	0.306***
BH_Identity_Meaning	<i>"If somebody praises this brand, to me, it is a personal compliment."</i>	1.395	0.209***
BH_Differentiation	<i>"This brand is unique compared to other brands."</i>	2.008	0.297***
BH_Prestige	<i>"This brand has a very good reputation."</i>	1.908	0.328***

Significance: \*\*\* p = 0.01; \*\* p = 0.05; \* p = 0.10

### ***Evaluation of the Reflective Measurement Models***

With regard to the evaluation of our reflective measurement models, Tab. 3 presents the manifest variables that are reflective indicators for the four measurement models of customer perceived value.

**Tab. 3** Manifest Variables of the Reflective Measurement Models

Affective Customer Perceived Value	
CPV_affective_01	<i>"This brand creates positive feelings."</i>
CPV_affective_02	<i>"This brands evokes positive perceptions."</i>
Economic Customer Perceived Value	

CPV_economic_01	<i>“This brand offers a lot for its price.”</i>
CPV_economic_02	<i>“This brand is worth its price.”</i>
<b>Functional Customer Perceived Value</b>	
CPV_functional_01	<i>“This brand stands for appropriate products.”</i>
CPV_functional_02	<i>“The products of this brand are very suitable.”</i>
<b>Social Customer Perceived Value</b>	
CPV_social_01	<i>“People who own this brand will be seen in a positive light.”</i>
CPV_social_02	<i>“The owner of this brand will be positively accepted by others.”</i>

As shown in Tab. 4, our results show sufficiently high factor loadings for all factors, with .80 being the smallest loading. This is evidence of indicator reliability. Furthermore, the PLS model estimation reveals that all reflective models construct exhibit satisfactory results in terms of internal consistency (Bagozzi & Yi 1988). The average variance extracted (AVE) estimates range from 73% to 87%, the Cronbach’s alphas range from .64 to .85, and the composite reliability values range from .84 to .93. In addition, we used the Fornell-Larcker criterion to assess discriminant validity; the AVE of each latent variable should be higher than the latent variable’s highest squared correlation with any other latent variable (Fornell & Larcker 1981). Each of the tested latent variables satisfies the criterion requirements, hence suggesting discriminant validity.

**Tab. 4** Assessing the Reflective Measurement Models

	Factor Loadings	Average Variance Explained (AVE)	Cronbachs Alpha	Composite Reliability	Fornell-Larcker-Criterion (AVE > Corr <sup>2</sup> )
Affective Customer Perceived Value	0.909 – 0.914	83%	0.797	0.908	0.83 > 0.51
Economic Customer Perceived Value	0.930 – 0.934	87%	0.849	0.930	0.87 > 0.43
Functional Customer Perceived Value	0.795 – 0.907	73%	0.635	0.842	0.73 > 0.43
Social Customer Perceived Value	0.927 – 0.934	87%	0.845	0.928	0.87 > 0.44

### *Evaluation of the Common Method Bias*

According to most researchers, common method variance is a potential concern in quantitative behavioral research when the measured independent and dependent variables are captured from the identical source such as self-reported data (Podsakoff et al. 2003). We followed Liang et al. (2007) to assess common method variance. Therefore, a common method factor which included all the constructs' indicators was added to our model. Then, the variance of each indicator explained by the substantive construct and by the method factor was compared to determine the amount of common method bias. As shown in Tab. 5, the largest variance explained by the method factor is 8.3 percent and most method factor loadings are not significant. Specifically, the average variance explained by the substantive factor is .57 and for the method factor .02 (ratio: 25:1). Thus, the common method variance is unlikely to be a serious concern in this study.

**Tab. 5** Common Method Variance Analysis

Construct	Indicator	Substantive Factor Loading (R1)	R1 <sup>2</sup>	Method Factor Loading (R2)	R2 <sup>2</sup>
Brand Heritage	BH_Credibility	0.550**	0.302	0.071	0.005
	BH_Bonding	0.554**	0.307	0.142	0.020
	BH_Differentiation	0.789**	0.623	-0.110	0.012
	BH_Success_Images	0.599**	0.358	-0.026	0.001
	BH_Identity_Meaning	0.358**	0.128	0.207*	0.043
	BH_Identity_Value	0.916**	0.839	-0.267**	0.071
	BH_Continuity	0.641**	0.410	-0.138	0.019
	BH_Cultural_Meaning	0.618**	0.382	0.046	0.002
	BH_Cultural_Value	0.599**	0.358	0.020	0.000
	BH_Myth	0.826**	0.681	-0.287**	0.082
	BH_Orientation	0.703**	0.494	-0.040	0.002
	BH_Prestige	0.776**	0.602	-0.163	0.027
	BH_Knowledge	0.530**	0.281	-0.260*	0.067
	BH_Familiarity	0.480**	0.230	0.273**	0.074
	BH_Imagination	0.726**	0.528	-0.135	0.018
Affective	CPV_affective_01	0.935**	0.874	-0.030	0.001

CPV	CPV_affective_02	0.888**	0.789	0.029	0.001
Economic CPV	CPV_economic_01	0.954**	0.910	-0.029	0.001
	CPV_economic_02	0.911**	0.830	0.029	0.001
Functional CPV	CPV_functional_01	0.746**	0.556	0.178**	0.032
	CPV_functional_02	0.978**	0.956	-0.196**	0.038
Social CPV	CPV_social_01	0.907**	0.823	0.035	0.001
	CPV_social_02	0.954**	0.911	-0.035	0.001
<b>Average</b>		<b>0.736</b>	<b>0.573</b>	<b>-0.030</b>	<b>0.023</b>

Significance: \*\* p = 0.01; \* p = 0.05

### *Evaluation and Discussion of the Structural Model*

As presented in Tab. 6, the coefficients of determination of the endogenous latent variables (R-square) for affective, economic, functional and social perceived value reveal medium to high values at .51, .40, .37 and .33, respectively. A nonparametric bootstrapping procedure (individual sign changes) was applied to evaluate the significance of the path coefficients. In addition, the predictive relevance of the PLS structural equation model was assessed using blindfolding procedures (cross-validated redundancy) (Tenenhaus et al. 2005) to measure Stone-Geisser's Q-square (Stone 1974; Geisser 1974). Referring to our initial hypotheses, the results of our data analysis reveal the following insights: In hypotheses 1 to 4, we postulate that brand heritage has a positive effect on all dimensions of customer perceived value. The impact of brand heritage on all elements of customer perceived value is positive and significant ( $p < .01$ ) as shown in Tab. 7. Furthermore, the Stone-Geisser Q-square values are greater than .30, which indicates that our introduced model has high predictive relevance (cf. Tab. 6). Accordingly, our empirical results provide full support for all four hypotheses; brand heritage has a significant effect on all aspects of customer perceived value. As presented in Tab. 7, the latent exogenous variable exhibits a very strong relationship to all four endogenous variables. Thus, brand heritage has a strong influence on the customer perceived value with great path coefficient which range from .58 to .72. Under-

stood as the indicators' relative importance in respect to form the summed scale that represents the latent variable, the outer weights as shown in Tab. 8 explain the latent variable with small to high impact.

**Tab. 6** Assessing the Structural Model

Endogenous LV	R <sup>2</sup>	Q <sup>2</sup>
Affective Customer Perceived Value	0.511	0.407
Economic Customer Perceived Value	0.400	0.347
Functional Customer Perceived Value	0.372	0.264
Social Customer Perceived Value	0.331	0.282

**Tab. 7** Bootstrapping Results for the Structural Relations

Exogenous LV → Endogenous LV	Original Sample	Sample Mean	Standard Deviation	Standard Error	T Statistics
Brand Heritage → Affective CPV	0.715	0.723	0.034	0.034	21.189
Brand Heritage → Economic CPV	0.632	0.647	0.041	0.041	15.588
Brand Heritage → Functional CPV	0.610	0.622	0.041	0.041	14.922
Brand Heritage → Social CPV	0.575	0.591	0.047	0.047	12.331

**Tab. 8** Bootstrapping Results for the Outer Weights

Formative Indicator → LV LV ← Reflective Indicator	Original Sample	Sample Mean	Standard Deviation	Standard Error	T Statistics
BH_Credibility → Brand Heritage	0.134	0.134	0.071	0.071	1.890
BH_Bonding → Brand Heritage	-0.007	-0.064	0.050	0.050	0.139
BH_Differentiation → Brand Heritage	0.126	0.135	0.073	0.073	1.719
BH_Success_Images → Brand Heritage	0.036	0.065	0.048	0.048	0.755
BH_Identity_Meaning → Brand Heritage	0.219	0.213	0.060	0.060	3.664
BH_Identity_Value → Brand Heritage	-0.009	-0.063	0.047	0.047	0.189
BH_Continuity → Brand Heritage	0.065	0.079	0.053	0.053	1.231
BH_Cultural_Meaning → Brand Heritage	0.217	0.207	0.080	0.080	2.698
BH_Cultural_Value → Brand Heritage	0.119	0.119	0.069	0.069	1.712

BH_Myth → Brand Heritage	-0.104	-0.100	0.058	0.058	1.797
BH_Orientation → Brand Heritage	0.115	0.123	0.065	0.065	1.775
BH_Prestige → Brand Heritage	0.084	0.097	0.067	0.067	1.251
BH_Knowledge → Brand Heritage	-0.057	-0.068	0.046	0.046	1.222
BH_Familiarity → Brand Heritage	0.423	0.410	0.090	0.090	4.689
BH_Imagination → Brand Heritage	0.069	0.083	0.059	0.059	1.162
CPV_affective_01 ← Affective CPV	0.555	0.556	0.017	0.017	32.724
CPV_affective_02 ← Affective CPV	0.542	0.542	0.018	0.018	30.596
CPV_economic_01 ← Economic CPV	0.529	0.529	0.015	0.015	35.177
CPV_economic_02 ← Economic CPV	0.544	0.545	0.016	0.016	33.992
CPV_functional_01 ← Functional CPV	0.686	0.683	0.038	0.038	18.127
CPV_functional_02 ← Functional CPV	0.476	0.478	0.034	0.034	14.017
CPV_social_01 ← Social CPV	0.549	0.547	0.021	0.021	26.002
CPV_social_02 ← Social CPV	0.526	0.527	0.021	0.021	25.500

In our study, the outer weights with highest impact are the variable familiarity (.42), identity meaning (.22) and cultural meaning (.22). That implies that heritage and luxury brands like CHANEL which exhibit an intensive bond with their customer, so that these customers perceive such a brand to be a part of their own personality and even more reflect a certain gracious lifestyle. Thus, these brands have a particular strong influence on customer perceived value.

In sum, the overall assessment of the measurement models and the structural model shows that the PLS estimation model is reliable and valid according to the criteria associated with the formative and reflective outer model as well as the inner path model. These results suggest the following implications for further research and managerial practice, as discussed in the next paragraph.

## NEXT RESEARCH STEPS AND MANAGERIAL IMPLICATIONS

### **Theoretical Contributions and Further Research**

The primary goal of this paper was to establish a multidimensional framework of value-based drivers and consequences of brand heritage, to explore this framework and a related factor structure with special focus on the luxury industry, and to identify significant causal relationships between the dimensions of perceived heritage value and their impacts on consumer perceived values, intentions and the resulting behaviors using a structural modeling approach.

A better understanding of the heritage of a brand and related value aspects and effects in the eyes of consumers is valuable for both researchers and marketers. Particularly in turbulent times and purchase decisions that are associated with certain risks, the heritage aspect provides consumers with a feeling of security and well-being. Furthermore, in a tumultuous global economy characterized by high dynamics, uncertainty and massive consumer disorientation, consumers tend to prefer brands with a heritage because these brands are perceived to be more credible, trustworthy and reliable. The heritage aspect of a brand adds the association of depth, authenticity and credibility to the brand's perceived value. This is particular the case for the luxury industry. The origin and heritage of a luxury brand is something that consumers are increasingly aware of and that adds value in the consumers' perspective.

Even though our results are only initial empirical hints, they should be explored in further research and implemented in managerial practice in different ways. In future analyses, analytical techniques or PLS typological alternatives (e.g., Esposito Vinzi et al. 2007; Ringle & Schlittgen 2007; Ringle, Sarstedt & Schlittgen 2010) may provide further differentiated path modeling results that allow more precise interpretation and the identification of differences in path coefficients across subgroups. Furthermore, a MIMIC model should be estimated for a more sophisticated validation of our presented formative heritage measurement model (e.g., Jöreskog & Gold-

berger 1975). Additionally, a study focusing on diverse user groups (e.g., B2C and B2B samples) may lead to interesting results in comparing differences and similarities in the perception of a given heritage brand. Moreover, the importance of the heritage and tradition of a brand may vary in times of economic crises vs. economic well-being. Therefore, a longitudinal study should compare the causal relationship of brand heritage to consumer attitude and behavior over time with reference to different heritage brands. The restriction of our study to the luxury context may have limited the extent to which the results and conclusions can be generalized to consumer perceived values. Therefore, extension to and comparison with other product categories—including brands that cannot be considered heritage brands—could enhance the conceptualization, measurement and management of the construct of brand heritage.

In sum, we hope that this study is the starting point for future research in the area of brand heritage, as the rise of retro, history and nostalgia are everywhere apparent, and consumers seem to be searching for authentic products with genuine history in an increasingly global marketplace.

### **Managerial Implications**

For marketing managers, our study may form the basis of a structured understanding of the perceived value of the heritage aspect associated with their brand. A heritage branding approach draws attention to the interplay between strategic goals and consumer perception and to how elements of past, present and future interpretations are crucial to building and sustaining meaningful brands. Our results show that brand heritage is an important driver of customer perceived value. All effects on the perceived economic value, the perceived functional value, the perceived affective value, and the perceived social value of a brand are significantly strong; therefore, brand heritage affects the overall perceived value in the eyes of the consumers. Besides, aspects such as



familiarity, identity meaning and cultural meaning were shown to have one of the highest impacts on brand heritage and have the potential to differentiate a heritage brand from others.

In detail, a comprehensive management approach dedicated to creating and maintaining a successful heritage brand with profitable longevity encompasses three steps: Uncover and understanding the brand heritage (step 1), activate the brand heritage (step 2) and protect the brand heritage (step 3). At first, it is important to examine the brand origins with regard to historic influences and key elements of a documented track record and the brand's evolution through time. Based on a better understanding of the historical foundations of the brand as well as its core values and the stakeholder associations, the key elements of a brand's heritage can be uncovered and leveraged. The activation of brand heritage has to be visible in all elements of a marketing campaign, as the marketing mix can invoke the personal and cultural associations of history with regard to a particular brand. In luxury marketing, visible product elements and aesthetics reflect traditional design elements that clearly differentiate the brand from its competitors. In terms of internal and external communication, a brand can be grounded with historically provable facts, with a brand story that creates an aura of authenticity. This can be reflected by the sum of all customer touch points in an approach of experiential distribution and be supported by a price-quality relationship that signals enduring quality over time.

As a final point, there is a main dilemma in the context of the protection of heritage brands to mention: In some cases, heritage brands can be seen as the oldest brands in a certain product category. Therefore, generations of consumers grew up with these brands; they are well-established and have in the past withstood the test of time and competition. However, heritage brands face the problem of being considered 'old' brands and as not being on the 'cutting edge' (Aaker 1996). Due to the need to appeal to the younger generations and provide future consumers with desire for the brand, a heritage branding management needs to maintain the benefits of heri-

tage and to be innovative to overcome the age barrier associated with heritage brands. If a brand's unique personality is based in the past but has readjusted its brand identity, brand meaning and core values with ongoing innovation to present and future consumer needs in a changing marketplace, its heritage is a key to the brand's continuing success and brand equity in the tension between past, present and even the future.

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## Beitrag 5

### **The Perceived Value of Brand Heritage and Brand Luxury: Managing the Effect on Brand Strength**

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# **The perceived value of brand heritage and brand luxury: Managing the effect on brand strength**

Klaus-Peter Wiedmann, Nadine Hennigs, Steffen Schmidt, Thomas Wüstefeld

## **1 INTRODUCTION**

Marketing managers need to constantly improve their understanding of the complexity and dynamics of a customer's value perceptions. As the highest level of prestigious brands encompassing several physical and psychological values (Vigneron and Johnson 1999), the management of luxury brands addresses various aspects of customer perceived value. Therefore, it is critical for luxury researchers and marketers to understand the reasons why consumers buy genuine luxury brands, what they believe real luxury is, and how their perception of luxury value affects their buying behavior.

Apart from the luxury aspect especially during turbulent times of dynamics or economical crisis, characterized by uncertainty and consumer disorientation, consumers tend to prefer strong brands with a heritage that indicate their reliability and authenticity (Leigh et al. 2006). The heritage aspect is a crucial part of a luxury brand as it has to appear both perfectly modern to the society of the day and at the same time laden with history (Kapferer and Bastien 2009). Heritage adds the association of depth, authenticity and credibility to the brand's perceived value and can result in an intensified brand loyalty and the willingness to accept higher prices (e.g., Urde, Greyser and Balmer 2007). Thus, if and to what extent consumers assign value to the heritage and luxury aspect of brands is the research focus of this study.

Incorporating relevant theoretical and empirical findings, the aim of the present study is to examine the antecedents and outcomes of luxury value and brand heritage as perceived by consumers and effects resulting on brand strength. Our paper is structured as follows: first, we analyze existing literature on the luxury concept and its elements; second, we develop a conceptual model focusing on the value-based key drivers of luxury perception and brand heritage; and third, to explore the various dimensions and effects underlying the perceived values of luxury brands and brands with a heritage, we present the methodology and results of our empirical study. Based on a structural modeling approach, we identify the most important effects of the perceived luxury and heritage of a brand on consumer perceived value in terms



of the customer's economic, functional, affective, and social evaluation of a brand and its related effects on the affective, cognitive and intentional brand strength. Finally, the results of our study are discussed with regard to future research and managerial implications.

## **2 CONSTRUCT DEFINITION AND LITERATURE REVIEW**

### **2.1 The Concept of Brand Heritage**

Urde, Greyser, and Balmer define the brand heritage construct as part of a corporate brand identity: "a dimension of a brand's identity found in its track record, longevity, core values, use of symbols and particularly in an organisational belief that its history is important" (2007, pp. 4–5). In contrast to a historical overview that is grounded only in the past, traditions and brand heritage embrace not only the time frame "the past" but also "the present" and "the future." (Wiedmann et al. 2011a). The heritage aspect represents longevity and sustainability as a promise to the stakeholders that the core values and performance of the brand are authentic and true (Urde 2003). Especially in a tumultuous global economy characterized by uncertainty and consumer disorientation or in times of economic crisis and dynamics consumers tend to prefer brands with a heritage that indicates their credibility, reliability and authenticity (Leigh et al. 2006). Moreover, such brands use their longevity and sustainability to indicate that their stated core values and performance level are reliable. Hence, heritage creates value and leverage for a brand, especially in a turbulent global market (Aaker 1996). In sum, the heritage of a brand adds the association of depth, authenticity, and credibility to the brand's perceived value. In referring to an integrated understanding of the brand heritage construct and its elements, this research follows the work of Wiedmann, Hennigs, Schmidt and Wuestefeld (2011b), Buß (2007) and the formative elements bonding, continuity, credibility, cultural meaning, cultural value, differentiation, familiarity, identity meaning, identity value, imagination, knowledge, myth, orientation, prestige and success images.

### **2.2 The Concept of Brand Luxury**

Seen as goods for which the simple use or display of a particular branded product brings esteem for its owner, luxury brands enable consumers to satisfy psychological and functional needs. The psychological benefits are considered the main factor distinguishing luxury from

non-luxury products (Nia and Zaichkowsky 2000). In the literature, a concept of exclusivity or rarity is well documented: Luxury brands are those whose price and quality ratios are the highest in the market (McKinsey 1990), and even though the ratio of functionality to price might be low with regard to certain luxury goods, the ratio of intangible and situational utility to price is comparatively high (Nueno and Quelch 1998). Therefore, luxury brands compete based on the ability to evoke exclusivity, brand identity, brand awareness, and perceived quality from the consumer's perspective (Phau and Prendergast 2000). Because luxury is a subjective and multidimensional construct, a definition of the concept should follow an integrative understanding. This paper uses the luxury brand definition of Vigneron and Johnson (1999) as the highest level of prestigious brands encompassing several physical and psychological values. For the purposes of our study, we follow the insights of Wiedmann, Hennigs, Siebels (2007, 2009) who developed and investigated an integrated conceptual framework of consumers' luxury brand perception based on the following key elements: price, usability, utility, uniqueness, quality, self-identity value, hedonism, materialism, conspicuousness and recognition value.

### **2.3 The Concept of Customer Perceived Value (CPV)**

As a context-dependent (Holbrook 1994; Parasuraman 1997), highly personal and multi-dimensional concept, customer perceived value can be defined as “an interactive relativistic consumption preference experience” (Holbrook 1994, p. 27), “a tradeoff between the quality or benefits they perceive in the product relative to the sacrifice they perceive by paying the price” (Monroe 1990, p. 46), “a customer's perceived preference for and evaluation of those product attributes, attribute performances, and consequences arising from use that facilitate (or block) achieving the customer's goal and purposes in use situations” (Woodruff 1997, p. 142), or “a consumer's overall assessment of the utility of a product based on perceptions of what is received and what is given” (Zeithaml 1988, p. 14). In accordance to the insights of Smith and Colgate (2007), we focus on the following four dimensions of customer perceived value: (1) the economic value as the monetary aspect of customer value, (2) the functional value, which represents the core benefit and basic utilities for the perceived value, (3) the affective value as representative for a more emotional perceived value based on feelings and (4) the social value, which stands for customer's personal orientation and personal matters.

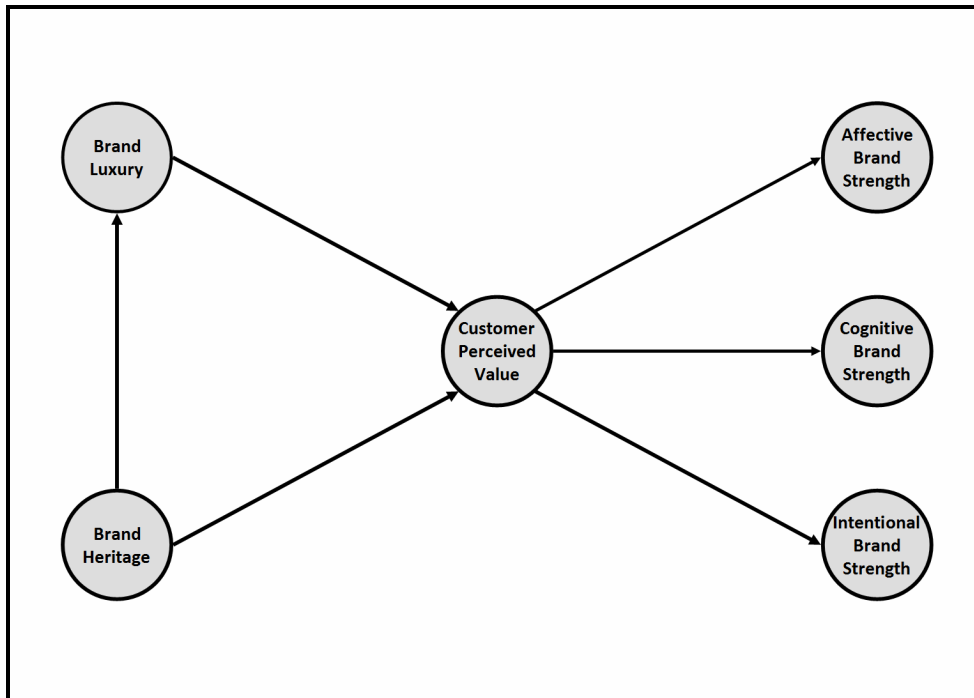
## **2.4 The Concept of Brand Strength**

For defining the brand strength construct we follow the insights of Wiedmann et al. (2011a, 4-5): Understood as the differential impact of brand knowledge on consumer responses to marketing efforts (Keller 2007), brand strength reflects a brand's ability to differentiate its offerings from those of the competition and to create customer value through meaningful associations. To examine the strength of a brand in terms of the consumer's overall attraction to it, for the purposes of this paper, we consider brand strength to be the set of associations and behaviors displayed by a brand's customers (Srivastava and Shocker 1991). The constitutive elements of perceived brand strength are manifold, and they include the category in which the brand operates, the culture and attitudes of the target audience, the competitive positioning and functional product attributes (Aaker and Biel 1993). Taking into account the breadth of this range of considerations, we decided to concentrate on one of the most significant components of overall brand strength: the strength of consumer attitudes toward the brand (Aaker and Keller 1990). As evaluations stored in the memory of consumers (Judd et al. 1991) and important guides for behavior, attitudes play a crucial role in influencing consumer choices. Based on a tripartite model including belief-based (cognitive), emotion-based (affective) and intention-based (behavioral) components (Rosenberg et al. 1969), attitudes are "tendencies to evaluate an entity [attitude object] into some degree of favour or disfavour, ordinarily expressed in cognitive, affective and behavioural responses" (Eagly and Chaiken 1993, p. 155).

## **3 THE CONCEPTUAL MODEL AND RELATED HYPOTHESES**

The proposed conceptual model for investigating the relationship between brand heritage, brand luxury, customer perceived value and brand strength is shown in Figure 1.

**Figure 1 Conceptual Model**



### **Brand Heritage → Customer Perceived Value**

Particularly in turbulent times and purchase decisions that are associated with certain risks, the heritage aspect provides consumers with a feeling of security and well-being. Furthermore, in a tumultuous global economy, consumers tend to prefer brands with a heritage because these brands are perceived to be more credible, trustworthy and reliable. For this reason, the brand heritage construct can minimize consumers' buying risk and can add consumer perceived value (e.g., Muehling and Sprott 2004; Stewart-Allen 2002):

*H1: Brand heritage has a positive effect on customer perceived value.*

### **Brand Luxury → Customer Perceived Value**

In order to analyze the impact of brand luxury on customer perceived value, in our empirical study, we conceptualize luxury brand perception as being caused by the aforementioned constructs as formative indicators (cf., methodology section). Besides functional needs, luxury brands satisfy psychological needs as a main factor in differentiating luxury from non-luxury products (Nia and Zaichkowsky 2000). Moreover, the ratio of experienced intangible and tangible utility to paid price of luxury brands reaches a high level compared to non-luxury

brands (Nueno and Quelch 1998). Hence, with reference to the key dimensions of customer perceived value, we hypothesize:

*H2: Brand luxury has a positive effect on brand's customer perceived value.*

### **Brand Heritage → Brand Luxury**

Brands with a heritage can benefit from going back to its roots and identifying what made it special (Aaker 2004). Heritage brands stand for longevity and sustainability, as proof that the core values and performance of the given products are reliable and true (Urde 2003). Especially those values strengthen and consolidate the luxury brand perception (for example such brand like Cerutti 1881 or Chanel):

*H3: Brand heritage has a positive effect on luxury brand perception.*

### **Customer Perceived Value → Brand Strength**

Delivering value is an ongoing and important concern in management (Ulaga and Chacour 2001). Concerning the question of how consumers perceive and evaluate brands especially the value of a brand can increase the brand equity in general. Concretely, this is also true for enhancing the brand strength with regard to the attitude-based apperception of a brand (Leone et al. 2006; Lassar et al. 1995; Keller 1993). Suggesting that customer perceived value performs as an accumulator in which the perceived heritage and luxury values are saved, we hypothesize the following:

*H4: Customer Perceived Value has a positive effect on a) affective brand strength, b) cognitive brand strength, c) intentional brand strength.*

## **4 METHODOLOGY**

### **4.1 The Questionnaire**

To measure the constructs as conceptualized in our model this study used already existing and tested measures (i.e., Wiedmann et al. 2011a and 2011b; Dubois and Laurent 1994; Richins and Dawson 1992; Tsai 2005) and generated further items resulting from exploratory interviews with luxury consumers. The questionnaire items were rated on a five-point Likert scale (1=strongly disagree, 5=strongly agree) and specified to the brand CHANEL, one of the world's leading luxury brands with a strong heritage.

### **4.2 Index Construction with Formative Indicators**

The construct for which we generated a measurement instrument based on formative indicators are brand heritage, brand luxury and customer perceived value. In contrast to the development and validation of multi-item scales based on reflective measures, the index construction using formative measures has received little attention. Following Diamantopoulos and Winklhofer (2001), there are four steps for constructing indexes based on a formative indicator: content specification, indicator specification, indicator collinearity and external validity. Because the latent variable is determined by its formative indicators, the specification of the domain of content is extremely important. Failure to consider all facets of the construct will lead to an exclusion of relevant indicators and parts of the construct itself. Our understanding of brand heritage relies on the key elements as proposed by Wiedmann, Hennigs Schmidt and Wuestefeld (2011a and 2011b), focusing on brand luxury we refer to the key elements of luxury value as proposed by Wiedmann, Hennigs and Siebels (2009), and with regard to the customer perceived value, we follow Smith and Colgate (2007). In addition, the generation of the items followed the guidelines of clarity, length, directionality, lack of ambiguity and avoidance of jargon (e.g., DeVellis 1991; Spector 1992).

### **4.3 The Sample**

To investigate the research model, an Internet survey with a snowball sampling method was developed in Germany. It was organized using an Internet form sent to selected web pages

and private costumers via personalized emails with the invitation to actively contribute to the survey. In winter 2010, a total of 333 valid questionnaires were received. Table 1 describes the sample characteristics.

**Table 1: Demographic Profile of the Sample**

Variable		n	%
<b>Age</b>	16 – 24 years	153	45.9
	25 – 29 years	106	31.8
	30 – 39 years	28	8.4
	40 years +	46	13.8
<b>Gender</b>	Male	94	28.2
	Female	239	71.8
<b>Marital status</b>	Single	269	80.8
	Married	48	14.4
	Widowed	0	0.0
	Divorced	11	3.3
	No answer	5	1.5
<b>Education</b>	Not graduated from high school	4	1.2
	Lower secondary school	2	0.6
	Intermediate secondary school	24	7.2
	A-Levels	187	56.2
	University Degree	115	34.5
	No answer	1	0.3
<b>Occupation</b>	Full time	84	25.2
	Part-time	24	7.2
	Pensioner / retiree	5	1.5
	House wife / husband	1	0.3
	Job training	11	3.3
	Student	193	58.0
	Scholar	9	2.7
	Seeking work	3	0.9
	No answer	3	0.9

Respondents were mainly aged 16 to 29 years with higher education. Those who are female and single were over-represented, which is indicative of the fact that many female students are particularly interested in a luxury brand like CHANEL. The higher percentage of young to middle-aged and female consumers in the sample may also be attributed to the greater Internet usage of young to middle-aged people.

## **5 RESULTS AND DISCUSSION**

### **5.1 PLS Path Modeling and related evaluation criteria**

In our exploratory study context, PLS (Partial Least Squares) path modeling was considered as the appropriate method for the empirical tests of our hypotheses. We used the analysis software SmartPLS 2.0 (Ringle et al. 2005) with no replacement and a bootstrapping procedure (probing individual sign changes). We followed the suggestions of Chin (1998) and his catalogue of non-parametric criteria for assessing the reliability and validity of the measures in the PLS estimation model. In general the assessment of the structural model's properties is only worthwhile if the measurement models exhibits a satisfactory degree of validity (Henseler, Ringle and Sinkovics 2009).

### **5.2 Evaluation of the Formative Measurement Model**

Table 2 presents the variables defined as formative indicators for the constructs of brand heritage, brand luxury and customer perceived value. In respect of the question of multicollinearity for our formative measurement models, the maximum variance inflation factors (VIF) for brand heritage, brand luxury and customer perceived value are 2.80, 3.04 and 2.09, as shown in Table 3, and lies below the common threshold of 10 (Diamantopoulos and Winklhofer 2001). Thus, multicollinearity does not pose a problem in our study. In regard to the assessment of external validity of each formative indicator, we examined whether they were significantly correlated with any global items that summarize the corresponding essence of brand luxury, brand heritage and customer perceived value. For that reason, appropriate seven-point semantic differentials for (i) the perceived extent of brand's tradition (1=not at all traditional, 7=very traditional); (ii) the perceived extent of brand's luxury (1=not at all luxury, 7=very luxury); (iii) the perceived extent of brand's usefulness (1=very negative, 7=very



positive) were applied. All formative indicators are significantly correlated with this adequate item in supporting their external validity (cf. Table 3). As shown in Table 4, not all formative indicator's weights are significant and above .1, but none of the indicators could be excluded from a theory-driven view without losing information to cover all facets of the corresponding construct (Cenfetelli and Bassellier 2009).

**Table 2: Manifest Variables of the Formative Measurement Models**

Brand Heritage	
BH_Continuity	<i>"This brand is very continuous."</i>
BH_Success_Images	<i>"This brand is related to images of success."</i>
BH_Bonding	<i>"I am bonded to this brand."</i>
BH_Orientation	<i>"This brand sets the valuation standard for other brands."</i>
BH_Cultural_Value	<i>"The products of this brand are a part of national treasure."</i>
BH_Cultural_Meaning	<i>"The products of this brand promote a certain way of living."</i>
BH_Imagination	<i>"I have an absolutely clear imagination of this brand."</i>
BH_Familiarity	<i>"My familiarity with this brand is very high."</i>
BH_Myth	<i>"This brand has a strong cultural meaning."</i>
BH_Credibility	<i>"This Brand represents honesty and truthfulness."</i>
BH_Knowledge	<i>"This brand is highly known in the society."</i>
BH_Identity_Value	<i>"This Brand has a strong brand identity."</i>
BH_Identity_Meaning	<i>"If somebody praises this brand, to me, it is a personal compliment."</i>
BH_Differentiation	<i>"This brand is unique compared to other brands."</i>
BH_Prestige	<i>"This brand has a very good reputation."</i>
Brand Luxury	
LX_Price	<i>"This brand is worth its price."</i>
LX_Usability	<i>"This brand makes life more attractive."</i>
LX_Uniqueness	<i>"This brand is very exclusive."</i>
LX_Quality	<i>"This brand is very valuable."</i>
LX_Self_Identity	<i>"This brand emphasizes the personality of its owner."</i>
LX_Utility	<i>"This brand stands for usefulness."</i>
LX_Hedonism	<i>"This brand stands for sensuality."</i>
LX_Materialism	<i>"This brand evokes the desire to possess it."</i>
LX_Conspicuousness	<i>"This brand gives its owner a social recognition."</i>
LX_Recognition	<i>"This brand stands for people who succeeded in their life."</i>

Customer Perceived Value	
CPV_affective	<i>"This brands evokes positive perceptions."</i>
CPV_economic	<i>"This brand offers a lot for its price."</i>
CPV_functional	<i>"The products of this brand are very suitable."</i>
CPV_social	<i>"People who own this brand will be seen in a positive light."</i>

**Table 3: Test for Multicollinearity and External Validity**

Formative Indicators	VIF	Spearman's rank correlation coefficient
BH_Continuity	1.58	0.441***
BH_Success_Images	1.78	0.330***
BH_Bonding	1.30	0.436**
BH_Orientation	1.63	0.509***
BH_Cultural_Value	1.45	0.285***
BH_Cultural_Meaning	1.23	0.103***
BH_Imagination	1.75	0.302***
BH_Familiarity	1.73	0.459***
BH_Myth	1.95	0.444***
BH_Credibility	1.70	0.448***
BH_Knowledge	1.69	0.323***
BH_Identity_Value	1.82	0.152***
BH_Identity_Meaning	2.80	0.100***
BH_Differentiation	2.00	0.254***
BH_Prestige	1.80	0.164***
LX_Price	1.81	0.281***
LX_Usability	1.84	0.317***
LX_Uniqueness	3.04	0.170***
LX_Quality	1.49	0.329***
LX_Self_Identity	1.75	0.236***
LX_Utility	1.24	0.170**
LX_Hedonism	2.35	0.333***
LX_Materialism	1.58	0.181***
LX_Conspicuousness	2.11	0.230***
LX_Recognition	2.01	0.314***
CPV_affective	2.09	0.621***

CPV_economic	1.76	0.506***
CPV_functional	1.39	0.321***
CPV_social	2.03	0.479***

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Significance: \*\*\* p = 0.01; \*\* p = 0.05; \* p = 0.10

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**Table 4: Bootstrapping Results for the Outer Weights**

Formative Indicator → LV	Original Sample	Sample Mean	Standard Deviation	Standard Error	T Statistics
BH_Bonding → Brand Heritage	0.151	0.152	0.053	0.053	2.861***
BH_Continuity → Brand Heritage	0.018	0.043	0.032	0.032	0.569
BH_Credibility → Brand Heritage	0.214	0.211	0.047	0.047	4.527***
BH_Cultural_Meaning → Brand Heritage	0.199	0.196	0.056	0.056	3.559***
BH_Cultural_Value → Brand Heritage	0.055	0.059	0.038	0.038	1.455
BH_Differentiation → Brand Heritage	0.130	0.132	0.047	0.047	2.788***
BH_Familiarity → Brand Heritage	0.118	0.117	0.054	0.054	2.164**
BH_Identity_Meaning → Brand Heritage	0.158	0.158	0.042	0.042	3.737***
BH_Identity_Value → Brand Heritage	0.007	0.049	0.036	0.036	0.196
BH_Imagination → Brand Heritage	0.005	0.041	0.033	0.033	0.157
BH_Knowledge → Brand Heritage	-0.060	-0.062	0.037	0.037	1.601
BH_Myth → Brand Heritage	-0.039	-0.049	0.037	0.037	1.054
BH_Orientation → Brand Heritage	0.078	0.080	0.043	0.043	1.814*
BH_Prestige → Brand Heritage	0.254	0.250	0.053	0.053	4.767***
BH_Success_Images → Brand Heritage	0.129	0.124	0.053	0.053	2.436**
LX_Conspicuousness → Brand Luxury	0.165	0.159	0.053	0.053	3.128***
LX_Hedonism → Brand Luxury	0.249	0.247	0.043	0.043	5.824***
LX_Materialism → Brand Luxury	0.435	0.435	0.044	0.044	10.000***
LX_Price → Brand Luxury	0.068	0.068	0.038	0.038	1.781*
LX_Quality → Brand Luxury	0.117	0.116	0.042	0.042	2.773***
LX_Recognition → Brand Luxury	0.103	0.102	0.048	0.048	2.131**
LX_Self_Identity_Value → Brand Luxury	0.037	0.047	0.034	0.034	1.089
LX_Uniqueness → Brand Luxury	0.047	0.053	0.031	0.031	1.520
LX_Usability → Brand Luxury	0.139	0.139	0.046	0.046	3.009***
LX_Utility → Brand Luxury	0.088	0.092	0.045	0.045	1.963*
CPV_affective → Customer Perceived Value	0.595	0.593	0.050	0.050	11.848***
CPV_economic → Customer Perceived Value	0.351	0.353	0.053	0.053	6.665***

CPV_functional → Customer Perceived Value	0.103	0.106	0.044	0.044	2.320**
CPV_social → Customer Perceived Value	0.143	0.139	0.054	0.054	2.675***
Significance: *** p = 0.01; ** p = 0.05; * p = 0.10					

### 5.3 Evaluation of the Reflective Measurement Models

With regard to evaluate our reflective measurement models, Table 5 presents the manifest variables that are reflective indicators for the three measurement models of brand strength. The results show sufficiently high factor loadings for all factors, with .66 being the smallest loading (cf. Table 6). This is evidence of indicator reliability. In addition, the PLS model estimation reveals that all reflective model constructs exhibit satisfactory results in terms of internal consistency (Bagozzi and Yi 1988). As shown in Table 6, the average variance extracted (AVE) estimates range from 60% to 74%, the Cronbach's alphas range from .68 to .88 and the composite reliability values range from .82 to .92. To assess discriminant validity, we used the Fornell-Larcker criterion: the AVE of each latent variable should be higher than the latent variable's highest squared correlation with any other latent variable (Fornell and Larcker 1981). Each of the tested latent variables satisfies the criterion requirements, suggesting discriminant validity.

**Table 5: Manifest Variables of the Reflective Measurement Models**

Affective Brand Strength	
BS_affective_01	<i>"This brand suits me completely."</i>
BS_affective_02	<i>"This brand keeps to its promise."</i>
BS_affective_03	<i>"I find this brand very pleasant."</i>
Cognitive Brand Strength	
BS_cognitive_01	<i>"This brand is very famous."</i>
BS_cognitive_02	<i>"In my opinion the quality of this brand is very high."</i>
BS_cognitive_03	<i>"This brand is very distinctive."</i>
Intentional Brand Strength	
BS_intentional_01	<i>"I intend to buy brand XY in the future."</i>
BS_intentional_02	<i>"I am very faithful to brand XY."</i>

BS_intentional_03	<i>"The products of brand XY are worth a higher price than other products."</i>
BS_intentional_04	<i>"I would recommend brand XY to my friends."</i>

**Table 6: Assessing the Reflective Measurement Models**

	Factor Loadings	Average Variance Explained (AVE)	Cronbachs Alpha	Composite Reliability	Fornell-Larcker-Criterion (AVE > Corr <sup>2</sup> )
Affective Brand Strength	0.819 – 0.896	74%	0.829	0.897	0.74 > 0.73
Cognitive Brand Strength	0.656 – 0.840	60%	0.676	0.819	0.60 > 0.54
Intentional Brand Strength	0.815 – 0.898	74%	0.882	0.919	0.74 > 0.73

#### 5.4 Evaluation and Discussion of the Structural Model

As shown in Table 7, the coefficients of determination of the endogenous latent variables (R-square) for brand luxury, customer perceived value and affective, cognitive plus intentional brand strength are high at .70, .68, .57, .45 and .57 respectively. All Stone-Geisser Q-square values are higher than .26, which indicates that our introduced model has high predictive relevance. In order to test our research hypotheses, we applied a nonparametric bootstrapping procedure (individual sign changes) to assess the significance of the path coefficients as presented in Table 8. We postulate in hypotheses 1 to 4 a positive effect on related constructs. The results reveal a positive and highly significant ( $p < .01$ ) impact of brand heritage and brand luxury on the customer perceived value (H1 and H2), a significant impact of customer perceived value on all aspects of brand strength (H4) and a positive impact of brand heritage on the brand luxury (H3) with path coefficients ranging from .43 to .84. Thus, our empirical results provide full support for all four hypotheses.

Understood as the indicators' relative importance in respect to forming the summed scale that represents the latent variables brand heritage, brand luxury and customer perceived value; the outer weights explain the latent variables with small to high impact. In our study (cf. Table 4), first, the outer weights with the highest impact of brand luxury are materialism (.44) and hedonism (.25). Second, the highest outer weights of brand heritage are prestige (.25) and credibility (.21). And third, the outer weights with the highest impact of customer perceived value are the affective (.60) and economic (.35) dimension of customer perceived value.

These results suggest that our investigation brand CHANEL has to address functional (tangible aspects like materialism or economic values) as well as psychological (intangible aspects like hedonism and affective values) needs to increase their brand strength in terms of a positive customer behavior.

**Table 7: Assessing the Structural Model**

Endogenous LV	R <sup>2</sup>	Q <sup>2</sup>
Brand Luxury	0.701	0.270
Customer Perceived Value	0.679	0.417
Affective Brand Strength	0.569	0.418
Cognitive Brand Strength	0.445	0.263
Intentional Brand Strength	0.567	0.411

**Table 8: Bootstrapping Results for the Structural Relations**

Exogenous LV → Endogenous LV	Original Sample	Sample Mean	Standard Deviation	Standard Error	T Statistics
Brand Heritage → Brand Luxury	0.837	0.845	0.017	0.017	50.251***
Brand Heritage → Customer Perceived Value	0.431	0.442	0.059	0.059	7.328***
Brand Luxury → Customer Perceived Value	0.428	0.420	0.059	0.059	7.212***
Customer Perceived Value → Affective Brand Strength	0.754	0.756	0.026	0.026	28.854***
Customer Perceived Value → Cognitive Brand Strength	0.667	0.668	0.036	0.036	18.373***
Customer Perceived Value → Intentional Brand Strength	0.753	0.755	0.025	0.025	30.404***

Significance: \*\*\* p = 0.01; \*\* p = 0.05; \* p = 0.10

In sum, the overall model assessment shows that the PLS estimation model is reliable and valid according to the criteria associated with the formative and reflective outer model as well as the inner path model. Our empirical results suggest the following implications for further research and managerial practice, as described in the next paragraph.

## **6 NEXT RESEARCH STEPS AND MANAGERIAL IMPLICATIONS**

### **6.1 Theoretical Contribution and Research Implications**

The primary goal of this paper was to establish and explore a multidimensional framework of value-based drivers and consequences of brand heritage and brand luxury. A better understanding of the drivers of brand heritage, brand luxury and related effects in the eyes of consumers is valuable for both researchers and marketers. Even though our results are only initial empirical hints, they should be explored in further research and implemented in managerial practice in different ways. In comparing differences and similarities in the perception of a given heritage brand or luxury brand, a study focusing on diverse cross-cultural groups may lead to interesting results. More specifically, it can be assumed that consumers in different parts of the world buy, or wish to buy, products for apparently varied reasons; however, regardless of their nationality, the basic motivational drivers are expected to be the same among the economic, functional, affective, and social dimensions of value perception. Besides, the importance of the formative indicators of brand heritage and brand luxury may vary with regard to the product category (e.g., fashion vs. technology). Therefore, a study could compare the causal relationship of brand heritage and brand luxury to consumer perceived value with reference to different products or even brands. Furthermore, a comparison of the evaluation of genuine and fake luxury products or brands with or without a strong aspect of heritage could enhance the conceptualization, measurement and management of brand heritage and brand luxury in the light of their effect on customer perceived value and brand strength.

### **6.2 Implications for Brand Management**

For marketing managers, our study may form the basis of a structured understanding of the perceived value of the heritage and luxury aspect associated with their brand. With regard to economic, functional, affective, and social value dimensions, marketers might be able to address and improve purchase value for consumers, who may differ in their value orientations and prefer that a certain brand satisfy either their cognitive or emotional needs. Based on deeper insights related to the question of why consumers buy their brands, marketing managers may elicit more sales from their target consumers by adequately addressing their value perception. Thus, marketers should first explore the core values expressed by their

brands, products, and market communications, and then compare them to their customers' value systems. This is useful from both a market segmentation point of view and a market positioning point of view, and will enhance the efficiency of marketing efforts for brands with a high degree of heritage and/or luxury.

In a global economy, where competitive products or counterfeits are easily available, brand managers should identify and concentrate on the specific value dimension that is regarded as the most important driver of consumption for their brand. Based on this, the market communication should stress the perceived values and emphasize the benefits of the given brand over competing brands or fake products. Even if low-cost counterfeit luxuries allow their buyers to be in tune with fashion without spending an exorbitant amount of money, a counterfeit product will never be able to provide the same pleasure or satisfy the individual need for sensory gratification. Consumers who place importance on the heritage aspect or hedonistic and materialistic product features might have a negative attitude towards a counterfeit purchase because they are aware of the self-deceiving aspect of this behaviour.

In order to be successful and to obtain a high perceived value in their customers' eye, luxury brand managers will have to address all relevant value dimensions: To be considered as a luxury brand in the eyes of the customers, it's about understanding the customers' evaluation and accentuating the brand appropriately to appeal to both their cognitive needs and affective desires. In sum, successful luxury brands balance the timelessness of brand heritage with innovative market communication and brand positioning to address contemporary consumers' needs and value perception.

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## **Beitrag 6**

### **Brand Heritage and the Impact upon Reputation: Corporate Roots as a Vision for the Future**

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*Eingereicht und unter Begutachtung bei:  
Corporate Reputation Review*

**BRAND HERITAGE AND THE IMPACT UPON REPUTATION:  
CORPORATE ROOTS AS A VISION FOR THE FUTURE**

*Klaus-Peter Wiedmann, Nadine Hennigs, Steffen Schmidt and Thomas Wuestefeld*

**ABSTRACT**

The ever-growing competition in the market leads to a paradigm shift starting from competition on the basis of products, to competition between problem solutions and strategies, and finally, to competition referring to identities and reputation. As corporate reputation is constituted on the basis of continuous interaction with stakeholders over time, the earlier actions of a company as well as its history and heritage are of special importance. With reference to consumers to whom heritage is meaningful, the heritage of a brand can result in an intensified brand loyalty and the willingness to accept higher prices. However, better knowledge of the conditions and drivers of brand heritage, the effects of brand heritage on corporate reputation and stakeholder perception behavior is still needed. The main research goal of this paper is to examine the crucial role of brand heritage as an essential driver of reputation and customer value perception as well as its effects on brand image and customer buying intention.

*Keywords: Brand Heritage, Corporate Reputation, Customer Behavior*

**INTRODUCTION**

*"There are two things children should get from their parents: roots and wings."*

Johann Wolfgang von Goethe

Understood as a result of a firm's interactions with stakeholders (Fombrun and van Riel, 2003), corporate reputation is formed over time based on company actions (Balmer and Greyser, 2003). Hence, aspects of tradition, heritage and history play a substantial role in the creation of corporate reputation (Mahon, 2002). Living in a tumultuous, global economy with fast transport, fast food and fast fashion, where even high-quality products are easily copied, consumers tend to prefer brands with a heritage. These brands are perceived to be more credible and reliable. The history of many years provides a solid basis for trust-building interactions between the company

and its stakeholders, and thus, its corporate reputation. With reference to consumers to whom heritage is meaningful, the heritage of a brand can result in an intensified brand loyalty and the willingness to accept higher prices (e.g., Urde *et al.*, 2007). A heritage-oriented management approach refers to an organization-focused view of the company's branding history and corporate reputation based on the company's past actions (Rindell, 2007).

In both marketing research and practice, the study of brands with a heritage as part of their corporate brand identity has gained growing interest (Brown *et al.*, 2003; Liebrecht-Himes *et al.*, 2007). However, better knowledge of the conditions and drivers of brand heritage, the effects of brand heritage on corporate reputation and stakeholder perception behavior is still needed. Therefore, the aim of the present study is to examine the antecedents and outcomes of brand heritage as an essential driver of corporate reputation.

Our paper is structured as follows: first, we analyze existing literature on the given constructs and their elements; second, we develop a conceptual model focusing on the antecedents and consequences of brand heritage as an essential driver of reputation and stakeholder perception; and third, we explore the hypothesized causal relationships, and present the methodology and results of our empirical study. Finally, the results of our study are discussed with regard to future research and managerial implications.

## **CONSTRUCT DEFINITION AND LITERATURE REVIEW**

### **Dimensions of Brand Heritage**

Urde *et al.* (2007) define the brand heritage construct as part of a corporate brand identity: "*a dimension of a brand's identity found in its track record, longevity, core values, use of symbols and particularly in an organisational belief that its history is important*" (pp. 4–5). In

contrast to a historical overview that is grounded only in the past, traditions and brand heritage embrace not only the time frame “the past”, but also “the present” and “the future” (Wiedmann *et al.*, 2011a). The heritage aspect represents longevity and sustainability as a promise to the stakeholders that the core values and performance of the brand are authentic and true (Urde, 2003). Especially in a tumultuous global economy characterized by uncertainty and consumer disorientation or in times of economic crisis and changing dynamics, consumers tend to prefer brands with a heritage that indicates their credibility, reliability and authenticity (Leigh *et al.*, 2006). Moreover, such brands use their longevity and sustainability to indicate that their stated core values and performance level are reliable. Consequently, heritage creates value and leverage for a brand, especially in a turbulent global market (Aaker, 1996). In sum, the heritage of a brand adds the association of depth, authenticity, and credibility to the brand’s perceived value. Referring to an integrated understanding of the brand heritage construct and its elements, this research follows the statement of Buss (2007). The multidimensional model, as shown in Figure 2, adds to the remarks of Urde *et al.* (2007), but focuses on the value-based antecedents and consequences of brand heritage (Wiedmann *et al.*, 2011a, 2011b). In order to increase the current understanding of value perception in the context of brand heritage, the question of what really adds value, from the consumer’s point of view, is defined in this paper through the existence of fifteen different attitude-relevant, perceived latent customer value dimensions. These dimensions encompass the constructs of: bonding, continuity, credibility, cultural meaning, cultural value, differentiation, familiarity, identity meaning, identity value, imagination, knowledge, myth, orientation, prestige and success images. They provide the basis for the identification of consumer segments that differ in their value perceptions.



**Table 1 Dimensions of Brand Heritage**

<b>Dimensions of Brand Heritage</b>	<b>Basic Meaning</b>
<b>Bonding</b>	This element is related to the brand-customer attachment and includes a close emotional relationship that leads to a higher degree of customer loyalty.
<b>Continuity</b>	The continuity aspect represents the longevity and sustainability of the brand performance, brand quality and brand values.
<b>Credibility</b>	Authenticity and reliability are important drivers of brand heritage. Reliable, honest brands make a promise to the stakeholders that the core values are credible and true.
<b>Cultural Meaning</b>	Referring to a certain lifestyle incorporated in and associated with the brand, the cultural meaning of the given brand is an important dimension of brand heritage.
<b>Cultural Value</b>	The heritage aspect is also influenced by a cultural value. That means, for example, that the products of such brands are a part of national treasure.
<b>Differentiation</b>	This element is closely related to the perceived singularity of a brand, i.e., its clear, unique positioning from the consumers' perspective.
<b>Familiarity</b>	To treat a brand with familiarity is the content of this key element of brand heritage. Brand awareness and experience with the brand increase the familiarity aspect.
<b>Identity Meaning</b>	A heritage brand may satisfy also emotional needs (e.g., self-expressions or personal identification) with a high overlap between the consumer personality and the brand identity.
<b>Identity Value</b>	Related to the perceived identity fit between consumers' self-identity and the perceived brand identity, this dimension includes a feeling of solidarity, togetherness, and a shared identity.
<b>Imagination</b>	This dimension refers to an absolute clear imagination of the brand. The power of the imagination forms detailed and deep images of the brand or brand values.
<b>Knowledge</b>	This dimension encompasses the consumers' experience and familiarity with a brand that are associated with a certain image in the eyes of our respondents.
<b>Myth</b>	A traditional sacred story or legend, which purports to explain cultural meaning or practice.
<b>Orientation</b>	This element refers to the brand's aptitude as a role model in a certain product category. The brand gives its consumers direction in the buying process and buying decisions.
<b>Prestige</b>	Encompassing the need for fame and exclusivity, this element refers to the perceived status-enhancement the usage of a certain brand may provide. In this connection, it has to be stated that some brands connote a heritage of excellence, style, and/or prestige.
<b>Success Images</b>	The brand is related to images of success. The brand is a symbol of high performance or good achievements.

### **Dimensions of Customer Perceived Value (CPV)**

As a context-dependent (Holbrook, 1994; Parasuraman, 1997), highly personal and multi-dimensional concept, customer perceived value can be defined as “*an interactive relativistic*

*consumption preference experience*” (Holbrook, 1994, p. 27), “*a tradeoff between the quality or benefits they perceive in the product relative to the sacrifice they perceive by paying the price*” (Monroe, 1990, p. 46), “*a customer’s perceived preference for and evaluation of those product attributes, attribute performances, and consequences arising from use that facilitate (or block) achieving the customer’s goal and purposes in use situations*” (Woodruff, 1997, p. 142), or “*a consumer’s overall assessment of the utility of a product based on perceptions of what is received and what is given*” (Zeithaml, 1988, p. 14). Following a comprehensive understanding of the customer value construct, all relevant actual and potential value sources of the consumer’s product or brand perception should be integrated into one single model. Drawing on, integrating, and extending the works of Park *et al.* (1986), Sheth *et al.* (1991), Ulaga (2003), Woodall (2003), Holbrook (1999, 2005), and Heard (1993–94) on the conceptualization of customer value, Smith and Colgate (2007) developed a customer value framework based on four major types of value that can be created by organizations: functional/instrumental value, experiential/hedonic value, symbolic/expressive value, and cost/sacrifice value. In accordance to the insights of Smith and Colgate (2007), we focus on the following four dimensions of customer perceived value:

**Table 2: Dimensions of Customer Perceived Value**

Dimension of customer perceived value	Basic Meaning
<b>Economic Value</b>	The economic dimension of customer value addresses direct monetary aspects, such as price, resale price, discount, investment, etc. It refers to the value of the product expressed in dollars and cents, to what is given up or sacrificed to obtain a product (e.g., Ahtola, 1984; Chapman, 1986; Mazumdar, 1986; Monroe and Krishnan, 1985). Similar to firms, consumers also try to minimize the costs, as well as other sacrifices that may be involved in the purchase, ownership, and use of a product (Smith and Colgate, 2007).
<b>Functional Value</b>	This dimension of customer value represents the core benefit and basic utilities, such as the quality, the uniqueness, usability, reliability, and durability of a certain product (Sheth <i>et al.</i> , 1991). Consumers expect the item they buy to work correctly, to look good, to last a long time, and to perform as expected and as promised (e.g., Fennel, 1978).

### **Affective Value**

The affective dimension refers to the experiences, feelings, and emotions a certain brand or product provides to the consumer in addition to its functional utility (Hirschman and Holbrook, 1982; Sheth *et al.*, 1991; Westbrook and Oliver, 1991). Hence, affective value describes the perceived subjective utility and intrinsically pleasing properties acquired from the purchase and consumption of a brand to arouse feelings and affective states, received from the personal rewards and fulfillment (Sheth *et al.*, 1991; Westbrook and Oliver, 1991).

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### **Social Value**

The social dimension of customer value focuses a customer's personal orientation towards a brand or product and addresses personal matters such as consumer's self-concepts, self-worth or self-identity value (e.g., Vigneron and Johnson, 2004; Hirschman and Holbrook, 1982). Consumers may associate psychological meaning with a product or they may use certain brands to integrate the symbolic meaning into their own identity (Holt, 1995; Vigneron and Johnson, 2004) or to support, express, and develop their own identities, personalities, tastes, and values (Douglas and Isherwood, 1979; Hirschman, 1988; Dittmar, 1994).

## **Dimensions of Corporate Reputation**

Reputation is an interdisciplinary construct with its roots in a number of disciplines, such as sociology, game theory and marketing (Deephouse, 2000). Although there are various definitions of reputation, one being, *“a corporate reputation is a stakeholder's overall evaluation of a company over time. This evaluation is based on the stakeholder's direct experiences with the company, any other form of communication and symbolism that provides information about the firm's actions and/or a comparison with the actions of other leading rivals”* (Gotsi and Wilson, 2001, p. 29). Corporate reputation can also be described as *“a perceptual representation of a company's past action and future prospects that describes the firm's overall appeal to all its key constituents when compared with other leading rivals”* (Fombrun, 1996, p. 72). Similarly, a positive corporate reputation is an important element of creating customer perceived value because as a multifaceted construct, it consists of four interrelated characteristics: credibility, reliability, responsibility, and trustworthiness (Fombrun and Shanley, 1990). The topic of

conceptualizing and measuring corporate reputation has gained growing interest in both marketing research and practice (Berens and van Riel, 2004). An exciting approach to measure corporate reputation tends to be based on practitioner ratings (Walsh and Wiedmann, 2004). A more academic approach postulating a multidimensional understanding of corporate reputation is the Reputation Quotient and the RepTrak™ (Fombrun *et al.*, 2000; Ponzi *et al.*, 2011; Reputation Institute, 2011). Based on these insights, we generated a measurement instrument with seven elements of brand reputation: citizenship, governance, innovation, leadership, performance, product and workplace.

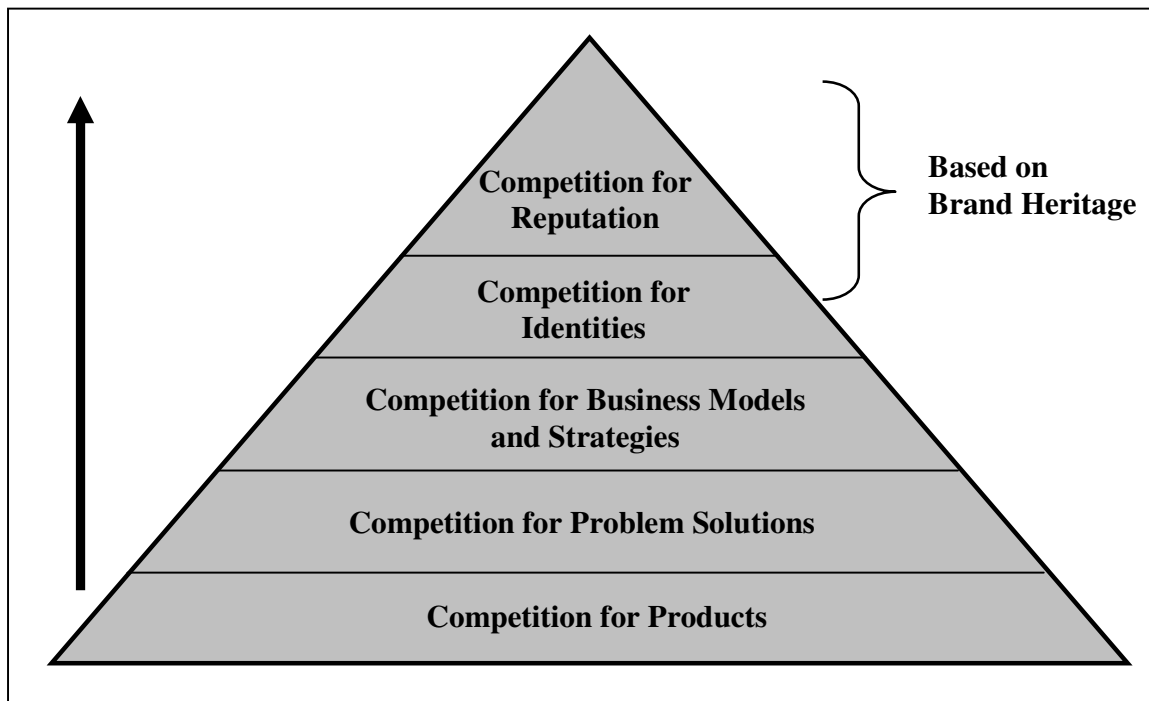
**Table 3: Dimensions of Corporate Reputation**

Dimension of Corporate Reputation	Basic Meaning
<b>Citizenship</b>	The citizenship dimension refers to the positive influence on society which a certain brand provides to the consumer.
<b>Governance</b>	Governance represents the level of a brand's openness and transparency. This dimension also relates to the brand's ethical behavior and manner of conducting business.
<b>Innovation</b>	The key element of innovation addresses an improvement and modernism aspect. Such brands launch innovative products and services, and adapt quickly to change
<b>Leadership</b>	The leadership element focuses on a clear vision. Well organized brands are strong and respected leaders.
<b>Performance</b>	Performance represents success and strong growth prospects. Brands with a good performance generate profit and positive financial results, and create value for the customer.
<b>Product</b>	Related to a positive price/quality ratio, this element focuses aspects like high quality, value for money, and customers' needs and expectations.
<b>Workplace</b>	The company can be described as having a collegial environment. Such brands promote their employees' well-being and offer equal opportunities.

## CONCEPTUAL MODEL AND HYPOTHESES DEVELOPMENT

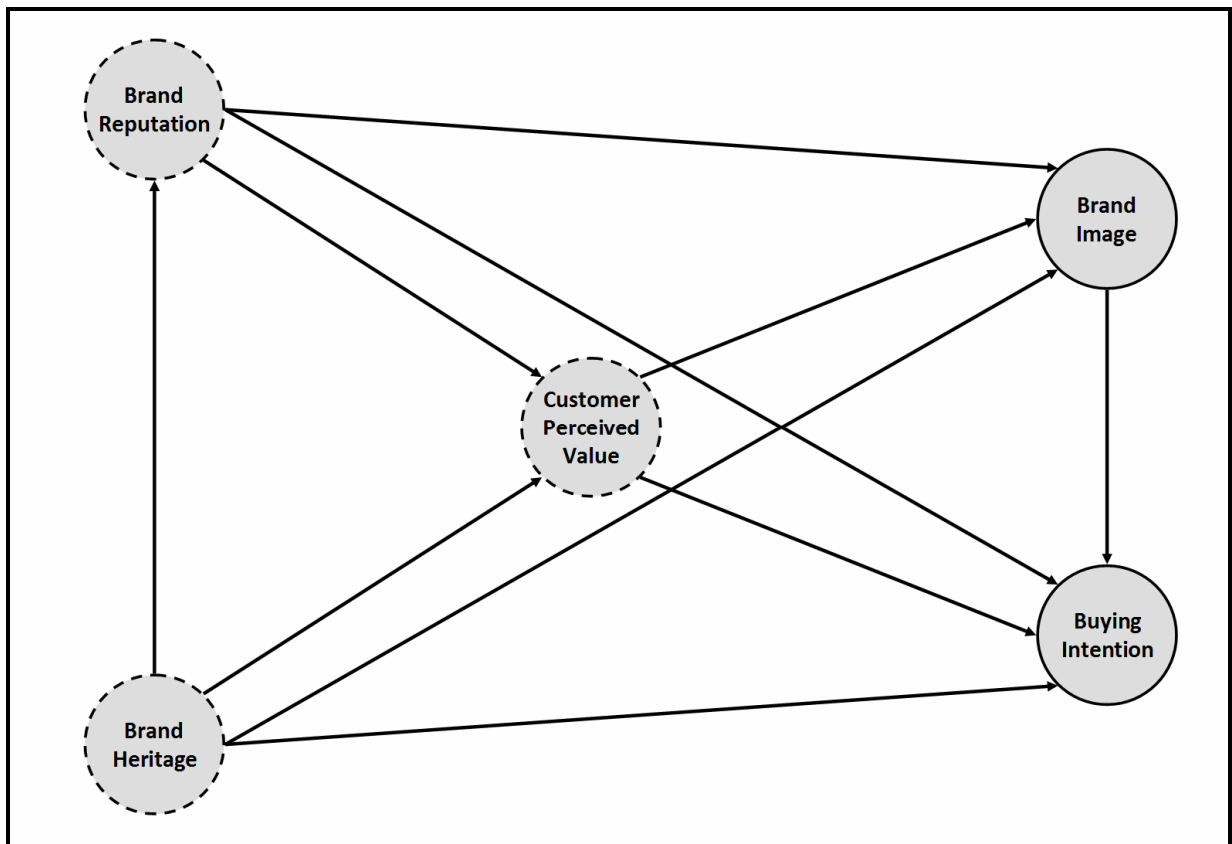
As illustrated in Figure 1, in today's highly competitive business environment, products and services are increasingly substitutable. The ever-growing competition in the market leads to a paradigm shift starting from competition on the basis of products, to competition between problem solutions and strategies, and finally, to competition referring to identities and reputation. The last two steps in the pyramid of competitions are deeply rooted in the company's tradition and are created on the basis of values that have been cultivated for many years. A long and rich heritage reflects continuity with the past in addition to quality sustainability as the general basis for a lasting competitive advantage. As Balmer (2011) states, corporate heritage brands emphasize their history (*'what we have done'*), traditions (*'what we do, and how'*) and culture (*'what the people expect and accept'*), but these are not only relevant to the past and the present. They define history as a dynamic process that is continuously being recreated, where the future can be understood as *'history in the making'* (Balmer, 2011).

**Figure 1: Pyramid of Competitions by Buss (2007)**



The discovery, activation and protection of heritage-based brand identity and reputation differentiate a brand from its competitors. Thus, being at the top of the pyramid of competitions, reputation is one of the most important strategic resources, and reputations are infused and based on the aspect of brand heritage (Buss, 2007). Companies whose actions are perceived to be credible, authentic and true to the brand's heritage reach the highest scores on brand trackers and reputation ranking systems (Burke *et al.*, 2011). Given that the management of a brand and a company's reputation are essential to one another (Schultz *et al.*, 2005; Keller, 2003; Schreiber, 2002), companies should concentrate on those brand attributes "*that are unique, authentic, and non-imitable, and look for alluring ways to project this image to the outside world as into the hearts and minds of their own employees*" (Hatch and Schultz, 2004, p. 1). As images are constituted on the basis of continuous interaction with stakeholders over time and "*the power of a brand lies in what customers have learned, felt, seen, and heard about the brand as a result of their experiences over time*" (Keller, 2003, p. 59), the earlier actions of a company as well as its heritage, history and reputation are of special importance. Accordingly, Aaker (2004) recommends that companies could benefit from "*going back to their roots and identify what made them special and successful in the first place*" (Aaker, 2004, p. 7). As illustrated in our conceptual framework (cf. Figure 2), the main research goal of this paper is to examine the crucial role of brand heritage as an essential driver of brand reputation and customer value perception as well as its effects on brand image and customer buying intention.

**Figure 2: Conceptual Model**



### **Brand Heritage and Related Outcomes (H<sub>1a</sub> to H<sub>1d</sub>)**

Brands with a heritage can benefit from going back to their roots and identifying what made them special initially (Aaker, 2004). Heritage brands stand for longevity and sustainability, as proof that the core values and performance of the given products are reliable and true (Urde, 2003). These values underline and help to define the brand's reputation.

*H<sub>1a</sub>: Brand heritage has a positive effect on brand reputation.*

Furthermore, in a tumultuous global economy, consumers tend to prefer brands with a heritage because these brands are perceived to be more credible, trustworthy and reliable. For this

reason, the brand heritage construct can minimize consumers' buying risk and can add consumer-perceived value (e.g., Muehling and Sprott, 2004).

*H<sub>1b</sub>: Brand heritage has a positive effect on customer perceived value*

We rely on previous studies dedicated to examining the drivers and outcomes of brand heritage. Existing research suggests that brands that are infused with heritage have a positive influence on the perception of the brand in general (e.g., brand image or brand trust) and on consumer behavior (e.g., loyalty or willingness to pay) in particular (Wiedmann *et al.*, 2011 b):

*H<sub>1c</sub>: Brand heritage has a positive effect on the perception of the brand in terms of a positive relation to brand image.*

*H<sub>1d</sub>: Brand heritage has a positive effect on the customer behavior in terms of a positive relation to buying intention.*

### **Brand Reputation and Related Outcomes (H<sub>2a</sub> to H<sub>2c</sub>)**

Brands with a positive reputation stand for credibility, reliability, and good performance or products. Brand reputation can increase expected quality, decrease information cost or buying risks, and enhance trust (Jeng, 2011). Thus, brand reputation has an effect on customer perceptions:

*H<sub>2a</sub>: Brand reputation has a positive effect on customer perceived value.*

Reputation is a concept related to image (Bennett and Rentschler, 2003). While reputation evolves over time as a result of consistent performance, image can be fashioned more rapidly through factors such as well-conceived communication (Gray and Balmer, 1998). We suggest that brand image is driven by brand reputation:



*H<sub>2b</sub>: Brand reputation has a positive effect on brand image.*

A positive effect of reputation on consumer satisfaction, loyalty or product attitudes has been analyzed in different empirical studies (e.g., Helm *et al.*, 2009; Bontis *et al.*, 2007; Kang and Yang, 2010). We suggest that brands that are infused with a positive reputation also influence the buying intention:

*H<sub>2c</sub>: Brand reputation has a positive effect on buying intention.*

#### **Customer Perceived Value and Related Outcomes (H<sub>3a</sub> to H<sub>3b</sub>)**

The customer perceived value is an important driver for customer behavior (Smith and Colgate, 2007, del Rio *et al.*, 2001). To analyze the impact of customer value perception in our empirical study, we examine the transfer from a positive product evaluation based on the perceived value on brand image and buying intention:

*H<sub>3a</sub>: Customer perceived value has a positive effect on brand image.*

*H<sub>3b</sub>: Customer perceived value has a positive effect on buying intention.*

#### **Brand Image and Related Outcomes (H<sub>4</sub>)**

The brand image is a key driver in forming brand equity and can create a strong effect on customer intention to purchase or use a product (e.g., Faircloth *et al.*, 2001). Therefore, we suggest the following:

*H<sub>4</sub>: Brand image has a positive effect on buying intention.*

## METHODOLOGY

### The Instrument

The conceptual model we introduced above includes formative as well as reflective measures. In particular, the formative measurement by Wiedmann *et al.* (2011b) was used to capture brand heritage. To cover all facets for brand reputation as the next formative construct, new manifest indicators were generated based upon the multidimensional models of the Reputation Quotient and the RepTrak™. For the formative construct, customer perceived value, a single item was selected for every dimension based on well-tested, existing measures (e.g., Holbrook, 1999; Woodall, 2003; Woodruff, 1997; Smith and Colgate, 2007). We applied the four-step guide by Diamantopoulos and Winklhofer (2001) to improve our understanding of brand reputation and customer perceived value as formative constructs. The steps are: content specification, indicator specification, indicator collinearity and external validity. Also, the guidelines of clarity, length, directionality, lack of ambiguity and avoidance of jargon were followed to ensure the generation of a sophisticated item (e.g., DeVellis, 1991; Spector, 1992). For measuring the remaining reflective constructs, brand image and buying intention, in our multidimensional model, we relied on existing scales (e.g., Sen *et al.*, 2001; Kirmani *et al.*, 1999; Dean, 1999). All items were rated on a five-point Likert scale (*1=strongly disagree, 5=strongly agree*) and specified to a cycling context. We focused on the brand *Continental*, in particular, as our investigation brand. It is one of world's leading brands in the high-premium, two wheel tire sector. Founded in 1871 as a rubber manufacturer, Continental began the production of pneumatic tires for bicycles in 1892, in Hanover, as the first company in Germany. Since then, Continental has gained a long and rich traditional brand history, which has been fundamental for the company's dynamic growth, and thus, it is currently the 4th largest tire manufacturer in the world. The face-validation of the questionnaire was ensured using exploratory and expert

interviews to check the length and the layout of the questionnaire as well as the quality of the items used.

### **Data Collection**

For data collection, we applied an online survey using a snowball sampling method. Focusing on active cyclists, the recruitment of respondents was organized through links posted on selected web pages (e.g., Internet bicycle forums, Facebook profile pages, etc.) including an invitation to actively participate in the survey. From March 2011 to April 2011, a total of 533 questionnaires were completed. To ensure sufficient product usage knowledge, 230 respondents, who cycled less than once a month and/or who did not know or did not use the brand, were excluded. A final sample of 303 cases was received.

### **The Sample**

Our quantitative study was conducted within the customer group of cyclists. The interviewed cyclists use their bicycles at least once a month, and thus, sufficient routine usage behavior and a broad knowledge in two-wheel tires was expected. We found that every cyclist had experienced the investigated brand by a personal product usage: 35.3 percent of the respondents had bought the investigated brand once and 64.7 percent had bought it more than once. Therefore, our chosen sample design ensures stable opinion patterns in terms of analyzing the determined impacts of brand heritage and brand reputation on the given constructs. Approximately 93 percent of the sample was male and, on average, 29.52 years old.

**Table 4: Demographic Profile of the Sample**

Variable		n	%
<b>Age</b>	16 – 24 years	103	34.0
	25 – 29 years	67	22.1
	30 – 39 years	85	28.1
	40 years +	48	15.8
<b>Gender</b>	Male	284	93.7
	Female	19	6.3
<b>Marital status</b>	Single	220	72.6
	Married	56	18.5
	Divorced	8	2.6
	Widowed	1	0.3
	No answer	18	5.9
<b>Education</b>	Not graduated from high school	16	5.3
	Lower secondary school	10	3.3
	Intermediate secondary school	51	16.8
	A-Levels	112	37.0
	University Degree	112	37.0
	No answer	2	0.7
<b>Occupation</b>	Full time	156	51.5
	Part-time	12	4.0
	Pensioner / retiree	4	1.3
	House wife / husband	1	0.3
	Job training	14	4.6
	Student	77	25.4
	Scholar	28	9.2
	Seeking work	7	2.3
	No answer	4	1.3

### Analysis Technique

Due to the fact that our conceptual model includes formative as well as reflective measures, we employed partial least squares (PLS) path modeling for the empirical tests of our hypotheses. PLS is a statistical technique including a nonparametric estimation procedure (Wold, 1982). It is also the preferred and appropriate method in an empirical research context, where it is difficult or sometimes impossible to hold the restrictive assumptions of more traditional multivariate statistical techniques such as LISREL (LInear Structural RELations) in complex models (Wold 1974, 1985; Ringle 2006). The empirical evaluation of our model was carried out using the software statistics package SmartPLS 2.0 (Ringle et al., 2005) with casewise replacement and a bootstrapping procedure (probing individual sign changes) for 303 valid cases. In general, the PLS estimation involves a two-step approach (Henseler et al., 2009): First, the

reliability and validity of the measurement models are evaluated (outer model); second, the structural model is assessed (inner model). In the following sections, we discuss the evaluation of the results with reference to the outer and inner models.

While our paper has a strong predictive scope besides theory-building using PLS, we employed artificial neural networks (ANN) to receive deeper insights of the underlying relationships in general and to improve the predictive quality of our model in particular. The use of ANN is inspired by the structure and function of neuronal networks in the human brain. In detail, this statistical analysis technique creates artificial input and output nodes which are usually connected through one or more hidden layers to build up a network of neurons similar to the central nervous system. Notably, ANN can be used to detect non-linear relationships between input and output data as well as to identify unknown patterns in an exploratory manner. As noted by Hsu *et al.* (2006), ANN-based path modeling reveals similar results to PLS-based path modeling. Equally to PLS, ANN follows two analytical steps with regard to an outer and inner model approximation (Hsu *et al.*, 2006).

## **RESULTS AND DISCUSSION**

### **The Measurement Models**

#### *Evaluation of the Reflective Measurement Model*

Regarding the assessment of our reflective measures, Table 5 presents the manifest variables that are reflective items to the given constructs.

**Table 5: Manifest Variables of the Reflective Measurement Models**

Brand Image	
BPB_Image_01	<i>“I like this brand very much.”</i>
BPB_Image_02	<i>“This brand is really likeable.”</i>
Buying Intention	
BPB_Intention_01	<i>“I intend to buy products from this brand in future.”</i>
BPB_Intention_02	<i>“I am aiming to prospectively buy products from this brand.”</i>

The factor loadings for both reflective measures are statistically significant and well exceed the recommended threshold of .7 (cf. Table 6), thus indicating item reliability (Carmines and Zeller, 1979; Hulland, 1999).

**Table 6: Assessing the Reflective Measurement Models**

	Factor Loadings	Average Variance Explained (AVE)	Cronbachs Alpha	Composite Reliability	Fornell-Larcker-Criterion (AVE > Corr <sup>2</sup> )
Brand Image	0.925 – 0.947	88%	0.861	0.934	0.88 > 0.67
Buying Intention	0.968 – 0.970	94%	0.935	0.969	0.94 > 0.59

Moreover, Table 6 shows that the average variance extracted (AVE), the internal consistency reliability test (Cronbach’s alpha and composite reliability) and the discriminant validity (Fornell-Larcker criterion) all exhibit satisfactory levels (Bagozzi and Yi; 1988, Fornell and Larcker, 1981; Nunnally and Bernstein, 1994).

#### *Evaluation of the Formative Measurement Model*

Table 7 comprises the manifest variables defined as formative indicators of our three formative constructs.

**Table 7: Manifest Variables of the Formative Measurement Models**

<b>Brand Heritage</b>	
BH_Continuity	<i>“This brand is very continuous. “</i>
BH_Success_Images	<i>“This brand is related to images of success. “</i>
BH_Bonding	<i>“I am bonded to this brand.“</i>
BH_Orientation	<i>“This brand sets the valuation standard for other brands.“</i>
BH_Cultural_Value	<i>“The products of this brand are a part of national treasure.“</i>
BH_Cultural_Meaning	<i>“The products of this brand promote a certain way of living.“</i>
BH_Imagination	<i>“I have an absolutely clear imagination of this brand.“</i>
BH_Familiarity	<i>“My familiarity with this brand is very high.“</i>
BH_Myth	<i>“This brand has a strong cultural meaning.“</i>
BH_Credibility	<i>“This brand represents honesty and truthfulness.“</i>
BH_Knowledge	<i>“This brand is highly known in the society. “</i>
BH_Identity_Value	<i>“This brand has a strong brand identity. “</i>
BH_Identity_Meaning	<i>“If somebody praises this brand, to me, it is a personal compliment. “</i>
BH_Differentiation	<i>“This brand is unique compared to other brands. “</i>
BH_Prestige	<i>“This brand has a very high prestige. “</i>
<b>Brand Reputation</b>	
REP_Citizenship	<i>“This brand is highly responsible.”</i>
REP_Governance	<i>“The transparency of this brand is very good.”</i>
REP_Innovation	<i>“The innovation strength of this brand is very high.”</i>
REP_Leadership	<i>“The leadership of this brand acts very professional. “</i>
REP_Performance	<i>“This brand is very successful.”</i>
REP_Product	<i>“The products of this brand are highly qualitative.”</i>
REP_Workplace	<i>“This brand is a very good place to work for.”</i>
<b>Customer Perceived Value</b>	
CPV_affective	<i>“This brand evokes positive perceptions. “</i>
CPV_economic	<i>“This brand offers a lot for its price. “</i>
CPV_functional	<i>“The products of this brand are very suitable. “</i>
CPV_social	<i>“People who own this brand will be seen in a positive light. “</i>

To assess the quality of formative measures, traditional statistical techniques for evaluating reflective measures cannot be applied (Hair et al., 2011). Hence, we relied on the recommendations of Diamantopoulos et al. (2008) to evaluate the formative measurement models. Despite the fact that not all indicators are significant and higher than .1 (cf. Table 10), none of the indicators could be omitted because of the information relevant to cover all facets of the corresponding construct (Cenfetelli and Bassellier, 2009). With regard to the absence of multicollinearity, the maximum variances in inflation values (VIF) for brand heritage, brand reputation and customer perceived value are 3.85, 2.12 and 2.32, respectively. All VIF are well

below the recommended level of 10 (Diamantopoulos and Winklhofer, 2001), indicating that multicollinearity does not pose a problem in this study. In addition, the external validity for any formative indicator was ensured by assessing the significance of the correlation with any global item that summarizes the entity of the accordant construct. Table 8 shows that all formative indicators are significantly correlated with the adequate global item, suggesting external validity.

**Table 8: Test for Multicollinearity and External Validity**

Formative Indicators	VIF	Spearman's rank correlation coefficient
BH_Continuity	1.49	0.257***
BH_Success_Images	1.78	0.237***
BH_Bonding	3.39	0.226***
BH_Orientation	2.08	0.267***
BH_Cultural_Value	1.88	0.284***
BH_Cultural_Meaning	2.07	0.187***
BH_Imagination	1.40	0.251***
BH_Familiarity	3.85	0.263***
BH_Myth	2.62	0.338***
BH_Credibility	1.73	0.325***
BH_Knowledge	1.52	0.179***
BH_Identity_Value	1.75	0.244***
BH_Identity_Meaning	1.67	0.201***
BH_Differentiation	1.85	0.175***
BH_Prestige	2.37	0.252***
REP_Citizenship	1.72	0.370***
REP_Governance	1.63	0.442***
REP_Innovation	2.10	0.471***
REP_Leadership	1.65	0.432***
REP_Performance	1.51	0.562***
REP_Product	2.12	0.624***
REP_Workplace	1.46	0.282***
CPV_affective	2.32	0.648***
CPV_economic	1.96	0.720***
CPV_functional	1.63	0.620***
CPV_social	1.90	0.528***

Significance: \*\*\* p = 0.01; \*\* p = 0.05; \* p = 0.10



## The Structural Model

### *Evaluation of the Structural Model*

According to Chin (1998) and with reference to the assessment of our inner model, the coefficients of determination of the endogenous latent variables (R-square) for brand reputation, customer perceived value, brand image and buying intention are substantial at .569, .696, .763 and .656, respectively, as illustrated in Table 9.

**Table 9: Assessing the Structural Model**

Endogenous LV	R <sup>2</sup>	Q <sup>2</sup>
Brand Reputation	0.569	0.260
Customer Perceived Value	0.696	0.461
Brand Image	0.763	0.661
Buying Intention	0.656	0.612

Furthermore, the assessment of Stone-Geisser's Q-square (Stone, 1974; Geisser, 1974) using a blindfolding procedure (cross-validated redundancy) (Tenenhaus et al. 2005) showed values higher than zero for all endogenous latent variables. These results indicate the predictive power of our model.

### *Discussion of the Structural Model*

For testing the assumed relationship among the variables of our model, we applied a nonparametric bootstrapping procedure (individual sign changes, 303 cases and 1200 subsamples) providing the path estimates in Table 10 and 11.

**Table 10: Bootstrapping Results for the Outer Weights**

Formative Indicator → LV	Original Sample	Sample Mean	Standard Deviation	Standard Error	T Statistics
BH_Bonding → Brand Heritage	0.196	0.192	0.076	0.076	2.594
BH_Continuity → Brand Heritage	0.100	0.101	0.051	0.051	1.963
BH_Credibility → Brand Heritage	0.167	0.163	0.052	0.052	3.234
BH_Cultural_Meaning → Brand Heritage	-0.062	-0.066	0.043	0.043	1.434
BH_Cultural_Value → Brand Heritage	-0.040	-0.052	0.036	0.036	1.101
BH_Differentiation → Brand Heritage	0.131	0.130	0.055	0.055	2.371

BH_Familiarity → Brand Heritage	0.276	0.275	0.077	0.077	3.596
BH_Identity_Meaning → Brand Heritage	0.103	0.098	0.047	0.047	2.172
BH_Identity_Value → Brand Heritage	0.061	0.069	0.048	0.048	1.266
BH_Imagination → Brand Heritage	0.001	0.042	0.032	0.032	0.018
BH_Knowledge → Brand Heritage	-0.006	-0.038	0.029	0.029	0.191
BH_Myth → Brand Heritage	0.026	0.052	0.039	0.039	0.670
BH_Orientation → Brand Heritage	0.183	0.181	0.061	0.061	2.988
BH_Prestige → Brand Heritage	0.203	0.203	0.066	0.066	3.066
BH_Success_Images → Brand Heritage	-0.018	-0.042	0.032	0.032	0.567
REP_Citizenship → Brand Reputation	0.044	0.051	0.034	0.034	1.268
REP_Governance → Brand Reputation	0.190	0.189	0.047	0.047	4.033
REP_Innovation → Brand Reputation	0.265	0.261	0.055	0.055	4.810
REP_Leadership → Brand Reputation	0.004	0.040	0.030	0.030	0.137
REP_Performance → Brand Reputation	0.080	0.083	0.046	0.046	1.721
REP_Product → Brand Reputation	0.616	0.617	0.054	0.054	11.499
REP_Workplace → Brand Reputation	0.025	0.046	0.035	0.035	0.715
CPV_affective → Customer Perceived Value	0.290	0.288	0.064	0.064	4.551
CPV_economic → Customer Perceived Value	0.462	0.462	0.060	0.060	7.691
CPV_functional → Customer Perceived Value	0.331	0.331	0.050	0.050	6.572
CPV_social → Customer Perceived Value	0.119	0.119	0.063	0.063	1.899

**Table 11: Bootstrapping Results for the Structural Relations**

Exogenous LV → Endogenous LV	Original Sample	Sample Mean	Standard Deviation	Standard Error	T Statistics
Brand Heritage → Brand Reputation	0.754	0.766	0.026	0.026	29.446
Brand Heritage → Customer Perceived Value	0.420	0.430	0.050	0.050	8.340
Brand Heritage → Brand Image	0.284	0.288	0.049	0.049	5.787
Brand Heritage → Buying Intention	0.268	0.281	0.061	0.061	4.427
Brand Reputation → Customer Perceived Value	0.470	0.462	0.051	0.051	9.218
Brand Reputation → Brand Image	0.372	0.370	0.048	0.048	7.763
Brand Reputation → Buying Intention	0.091	0.097	0.062	0.062	1.456
Customer Perceived Value → Brand Image	0.291	0.287	0.054	0.054	5.434
Customer Perceived Value → Buying Intention	0.174	0.169	0.069	0.069	2.516
Brand Image → Buying Intention	0.344	0.335	0.089	0.089	3.846

The data analysis reveals the following insights with regard to our initial hypotheses: We postulate in hypotheses H<sub>1a</sub> to H<sub>1d</sub> that brand heritage has a positive impact on brand reputation, customer perceived value, brand image and buying intention. The effects of brand heritage are positive and strongly significant ( $p < .01$ ). Thus, H<sub>1a</sub> to H<sub>1d</sub> receive full support. The effect of brand reputation on customer perceived value and on brand image is strong, positive and highly significant ( $p < .01$ ), but it is important to note that the path from brand reputation to buying intention is only slightly significant ( $p < .10$ ). Consequently, these findings are in line with hypotheses H<sub>2a</sub> to H<sub>2c</sub>. Finally, the postulated effects of customer perceived value on brand image

and buying intention as well as brand image on buying intention are positive and significant ( $p < .01$ ). Consequently, these empirical results provide full support for hypotheses H<sub>3a</sub>, H<sub>3b</sub> and H<sub>4</sub>.

According to the criteria associated with the formative and reflective outer model as well as the inner path model, our conceptual model can be regarded as reliable and valid. In the following paragraph, we used ANN for a deeper understanding of the relationships between the constructs and to reassess the predictive strength of our model, before we discuss implications for managerial practice and for further research in the next section.

*Reviewing the construct relations using artificial neural networks*

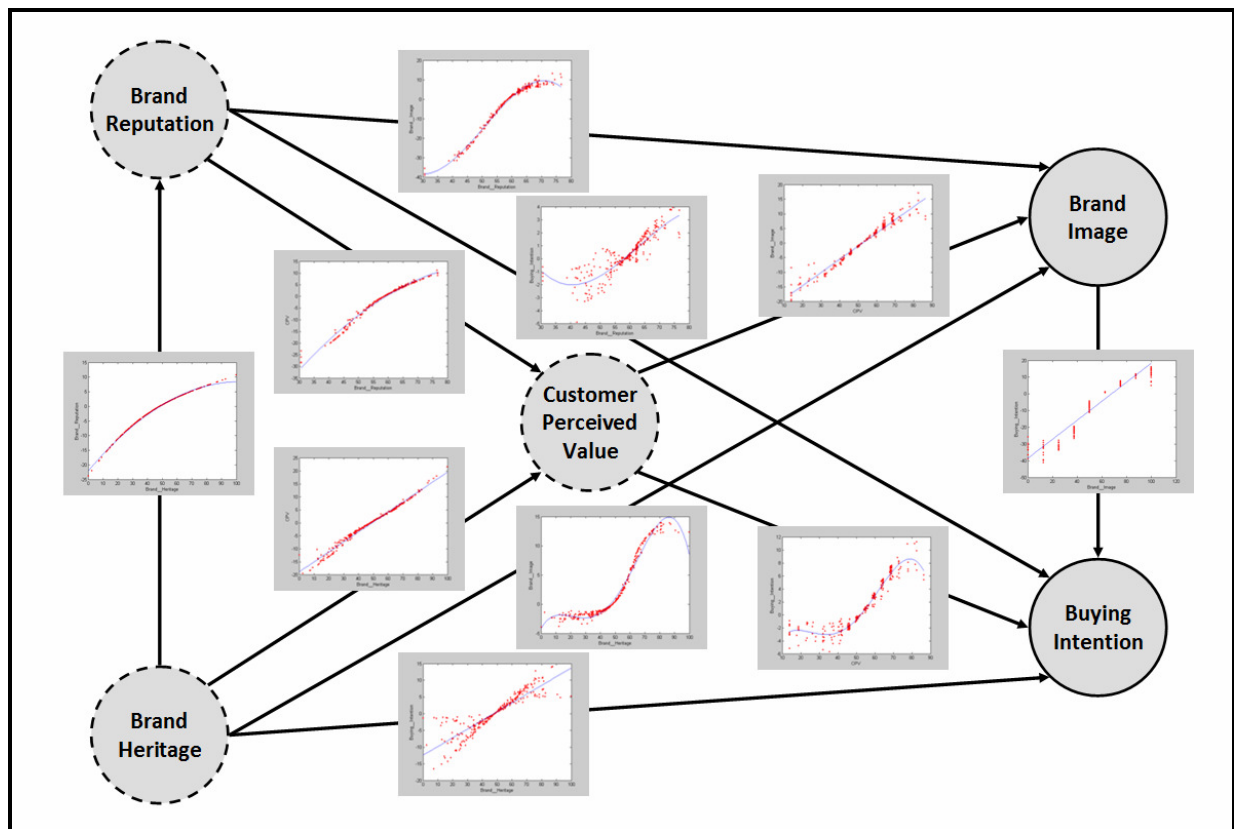
Table 12 shows the determination of the endogenous latent variables using ANN. In practice, the ANN-based inner relation approximation reveals similar R<sup>2</sup>.

**Table 12: Comparison of the Structural Model Estimation between ANN and PLS**

Brand Reputation	
ANN: R <sup>2</sup>	0.54
PLS: R <sup>2</sup>	0.57
OEAD: Brand Heritage	0.54
Customer Perceived Value	
ANN: R <sup>2</sup>	0.72
PLS: R <sup>2</sup>	0.70
OEAD: Brand Heritage	0.38
OEAD: Brand Reputation	0.37
Brand Image	
ANN: R <sup>2</sup>	0.75
PLS: R <sup>2</sup>	0.76
OEAD: Brand Heritage	0.14
OEAD: Brand Reputation	0.36
OEAD: Customer Perceived Value	0.21
Buying Intention	
ANN: R <sup>2</sup>	0.66
PLS: R <sup>2</sup>	0.66
OEAD: Brand Heritage	0.11
OEAD: Brand Reputation	0.03
OEAD: Customer Perceived Value	0.07
OEAD: Brand Image	0.38
OEAD = Overall explained absolute deviation (assessed by ANN)	

These results verify the fundamental predictive power of our conceptual model and are supportive of all hypotheses. They also confirm the findings of Hsu *et al.* (2006) and indicate that ANN-based SEM methodology represents a component-based technique (Hsu *et al.*, 2006). Furthermore, our ANN-based path modelling uncovers linear as well as non-linear relationships between the LV's. For example, as shown in Figure 3, the linkage between brand heritage and the corresponding latent variables is linear (customer perceived value, buying intention) as well as non-linear (brand reputation, brand image). In detail, the relationship between brand heritage and brand reputation follows a saturation curve. Likewise, the results indicate a non-linear relation between brand reputation and all three respective constructs (customer perceived value, brand image, buying intention). While the effect of brand reputation on brand image and customer perceived value is decreasing, it is increasing with regard to the buying intention construct.

**Figure 3: Non-linear relationships between the LV's**



## NEXT RESEARCH STEPS AND MANAGERIAL IMPLICATIONS

### **Theoretical Contribution and Research Implications**

The primary goal of this paper was to empirically investigate the antecedents and consequences of brand heritage as a key driver of corporate reputation and customer value perception as well as related behavioral outcomes. The results of our PLS-based structural model approach give evidence for the positive impact of brand heritage on brand reputation, customer perceived value, brand image and buying intention. While our results are only initial, empirical hints, they should be explored in further research and implemented in managerial practice in different ways. In future analyses, analytical techniques or PLS typological alternatives (e.g., Ringle and Schlittgen, 2007; Ringle *et al.*, 2010) may provide further differentiated path modeling results that allow for more precise interpretation as well as for the identification of differences in path coefficients across subgroups. Additionally, a study focusing on diverse user groups (e.g., diverse stakeholder samples from different countries) may lead to interesting results with regard to comparing differences and similarities in the perception of a given heritage brand. The importance of the heritage aspect of a brand may vary in times of economic crises vs. economic well-being. Therefore, a longitudinal study should compare the causal relationship of brand heritage with stakeholder attitudes and behavior over time with reference to different heritage brands and different economic conditions. The specific industry context of our empirical study may have limited the extent to which the results and conclusions can be generalized for use in other industries. Therefore, in the tension between continuity and change, extension to and comparison with other product categories – including brands that cannot be considered heritage brands – could enhance the conceptualization, measurement and management of the construct of brand heritage as a driver of corporate reputation and stakeholder perception.

## **Implications for Brand Management**

The heritage aspect of a brand adds the association of depth, authenticity and credibility in the tension between the past, present, and future. A company that is deeply rooted in tradition can use its long, rich heritage as the basis to emphasize its unambiguous identity, which is strongly connected with reputation and perceived image. The continuity with the past illustrates an effort to achieve trust and recognition as a heritage brand between the organization and its stakeholders. Longstanding corporate roots and values are the basis for the creation of new ideas informed by the 'precept of pressing forward with the past' (Balmer, 2011).

A heritage-infused management approach draws attention to the interplay between strategic goals and stakeholder perception over time. It also highlights how elements of past, present and future interpretations are crucial to building and sustaining meaningful brands. Our study results reveal that brand heritage is an important driver of stakeholder perceptions and corporate reputation. In response to competitive pressure, a comprehensive management approach dedicated to emphasizing the heritage aspect of a brand as having a lasting competitive advantage strengthens the authentic and unique historical roots of the organization. Furthermore, such an approach looks *"for alluring ways to project this image to the outside world as into the hearts and minds of their own employees"* (Hatch and Schultz, 2004, p. 1). Based on a better understanding of the historical foundations of the brand as well as its core values and stakeholder associations, the key elements of a brand's heritage can be uncovered and leveraged. To a company that is rooted in the past but has readjusted its brand meaning and core values with ongoing innovation to meet present and future stakeholders' needs, heritage is the key to continuing success in the ever-changing marketplace.

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## **Beitrag 7**

### **PLS Path Modeling in Strategic Management: Implementing Key Performance Drivers into a Brand Perception Cockpit**

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**PLS PATH MODELING IN STRATEGIC MANAGEMENT:  
IMPLEMENTING KEY PERFORMANCE DRIVERS INTO A BRAND PERCEPTION COCKPIT**

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**ABSTRACT**

The knowledge of causal effects based on structural equation modeling (SEM) is a useful basis for the planning and management of strategic objectives. As one of the most powerful causal analysis techniques, partial least squares (PLS) path modeling has been applied to a broad range of phenomena in strategic management in recent years. The objective of this study is twofold: first, to identify the main motivations for the usage of PLS-SEM in strategic management based on an extensive literature review and second, to illustrate the application of PLS-SEM related to an empirical study in the context of strategic brand management. For the purposes of this paper, we focus on the measurement and management of key drivers of brand perception. Considering the interplay between strategic goals and brand perception, the knowledge of complex cause-effect relationships and key performance drivers in a certain business area can be implemented in a brand perception cockpit, an integrated instrument panel. Based on the theoretical and empirical findings, implications for strategic management research and business practice are discussed.

*Keywords: Brand Perception, Partial Least Squares, Strategic Management, Structural Equation Modeling*

**INTRODUCTION**

The planning and management of strategic objectives is directed by the ability of decision-makers to understand complex cause-effect relationships based on structural equation modeling (SEM) (Wu, 2010). As one of the most powerful causal analysis techniques, partial least squares (PLS) path modeling has been applied in recent years to a variety of contexts and a broad range of phenomena in strategic management studies, including theoretical and applied research in management focusing on firm performance, knowledge management, organizational behavior, project management, information systems, strategic alliances,

financial planning, innovation management, marketing programs and consumer behavior. However, the usage of PLS-SEM is determined by specific requirements and methodological issues resulting from the lack of background knowledge or misapplied practical guidelines. To address with this topic, referencing and extending existing reviews of PLS-SEM usage in the field of strategic management (Hulland, 1999) and marketing research (Hair et al., 2011; Henseler et al., 2009; Reinartz et al., 2009), the objective of this study is twofold. First, to provide a systematic assessment and critical examination, we identify the main motivations and key objectives for the usage of PLS-SEM in strategic management based on an extensive literature review. Second, we illustrate the application of PLS-SEM by referring to an empirical study in the context of strategic brand management. Finally, based on the theoretical and empirical findings of this research, implications for strategic management research and business practice are discussed.

### **THE MEASUREMENT OF COMPELX CAUSE-EFFECT RELATIONS**

In general, to measure complex cause-effect relationships with latent variables, researchers have to decide which SEM approach is appropriate in the given study context. Covariance-based (CB) techniques and PLS constitute two corresponding, yet distinctive (Schneeweiß, 1991), statistical techniques (Temme et al., 2006; Tenenhaus et al., 2005); their use should depend on the purpose and the context of the research, as shown in Table 1 (Bagozzi and Yi, 1994; Chin, 1998a; Chin, 1998b; Chin & Newsted, 1999; Diamantopoulos & Winklhofer, 2001; Fornell & Bookstein, 1982; Henseler et al., 2009; Hulland, 1999).

**TABLE 1****A Comparison of CB-SEM and PLS-SEM**

CB-SEM	PLS-SEM
<ul style="list-style-type: none"> <li>• Theory confirmation</li> <li>• Focus on maximizing the explained co-variation among various constructs</li> <li>• Aim of explaining relationships</li> <li>• Well suited to evaluating the relative fit of competing theoretical models</li> <li>• Restrictive assumptions, e.g., theory grounding, sample size</li> <li>• Reflective measurement models</li> </ul>	<ul style="list-style-type: none"> <li>• Causal explanation</li> <li>• Focus on maximizing the explained variation among various constructs</li> <li>• Method of choice for success factor (cause indicator) studies</li> <li>• Well suited for exploration and prediction in an early stage of theoretical development</li> <li>• Sample sizes are small to medium</li> <li>• Reflective and formative measurement models</li> </ul>

While PLS stresses causal explanation and maximizes the explained variation among various constructs, CB-SEM highlights theory confirmation and focuses on maximizing the explained covariance among various constructs (Lauria & Duchessi, 2007; Wu, 2010). To explain relationships among the data, a covariance structure analysis based on maximum likelihood estimation was thought to be well suited for evaluating the relative fit of competing theoretical models (Hahn et al., 2002). In those situations where it is difficult or impossible to meet the restrictive assumptions of more traditional multivariate statistics, PLS, as a well-substantiated alternative to CB-SEM, is the preferred method. Whereas methods such as CB-SEM are not suited to deal with small data samples and can yield non-unique or otherwise improper solutions in some cases (Fornell & Bookstein, 1982), PLS can overcome these limitations (Wold, 1974; Wold 1985). PLS is more flexible in handling various modeling problems in a variety of contexts, ranging from theoretical and applied research in marketing, management and other social science disciplines (Ringle, 2006). Essentially, PLS integrates principal-components analysis with multiple regression (Hahn et al., 2002) based on least squares estimation, with the primary objective being to maximize the explanation of variance (or, equivalently, the minimization of error) in the dependent constructs of a structural equation model (Henseler et al., 2009). In PLS, the latent variables, operationalized as



principal components or weighted indices of the measurement variables, provide managers with performance information and impact scores (Hahn et al., 2002). Hence, PLS is the method of choice for success factor (cause indicator) studies in marketing management (Albers, 2010).

## **THE APPLICABILITY OF PLS-SEM IN STRATEGIC MANAGEMENT: A LITERATURE REVIEW**

Causal modeling approaches form a useful basis for researchers and practitioners in strategic management; however, due to their underlying assumptions and limitations, these techniques must be used appropriately. To determine the status quo for using PLS in strategic management, we considered and extended the insights of Shook et al. (2004) and Henseler et al. (2009). While Henseler et al. (2009) focused on an exhaustive literature review regarding PLS path modeling specific to international marketing research, Shook et al. (2004) generally compared the use of structural equation modeling in strategic management studies. With reference to Shook et al.'s (2004) selection of prominent and main management journals, we identified 53 relevant studies in 11 management journals (7-year period since 2005), which used the covariance-based modeling technique as the means of statistical analysis. For our review, we used important academic publishing databases (e.g., ScienceDirect) and the online versions of the selected journals. To find empirical PLS applications in the field of strategic management, we conducted a full text search using the keywords "PLS" and "partial least squares". Table 2 lists the selected journals, articles and the main motivations for using PLS path modeling in the context of strategic management.

**TABLE 2**

**Review of PLS research in strategic management since 2005**

Journal	Author and year	Motivation for using PLS in strategic management
Decision Science (21)	Ettlie and Pavlou (2006)	<ul style="list-style-type: none"> <li>• “it places minimal restrictions on the sample size and residual distributions.” (p. 132)</li> <li>• “PLS was chosen to account for the small sample size, the formative higher-order factor for interfirm partnership dynamic capabilities, and the moderating effects.” (p.132)</li> </ul>
	Looney, Valacich, Todd and Morris (2006)	<ul style="list-style-type: none"> <li>• “(PLS) was chosen to analyze the research model...because PLS is more suitable than covariance-based techniques when the objective involves theory building.” (p. 225)</li> </ul>
	Keil, Depledge and Rai (2007)	<ul style="list-style-type: none"> <li>• “PLS simultaneously assesses both the measurement model and the structural model” and “it is appropriate to evaluate the predictive validity of causal models.” (p. 404)</li> <li>• “PLS does not require the manifest variables to be normally distributed (Chin, 1998), which is the case for our study.” (p. 405)</li> </ul>
	Klein, Rai and Straub (2007)	<ul style="list-style-type: none"> <li>• “The proposed research model involved multiple interdependent relationships and some formative constructs. This combination of factors was conducive to PLS.” (p. 628)</li> </ul>
	Wang and Wie (2007)	<ul style="list-style-type: none"> <li>• “it allows latent constructs to be modeled as either formative or reflective.” (p. 659)</li> </ul>
	Al-Natour, Benbasat and Cenfetelli (2008)	<ul style="list-style-type: none"> <li>• “PLS was chosen instead of a covariance-based technique, because maximizing the variance explained in the endogenous variables was judged to be a more appropriate objective given the exploratory nature of some of the model’s hypothesized relationships.” (p. 191)</li> </ul>
	Venkatesh and Bala (2008)	<ul style="list-style-type: none"> <li>• “PLS has minimal restrictions in terms of distributional assumptions and sample size.” (p. 285)</li> </ul>
	Preston, Chen and Leidner (2008)	<ul style="list-style-type: none"> <li>• “We selected PLS because it allows both formative and reflective constructs.” (p. 621)</li> </ul>
	Jeffers, Muhanna and Nault (2008)	<ul style="list-style-type: none"> <li>• “PLS places minimal demands on measurement scales, sample size, and distributional assumptions.”</li> <li>• “this study was primarily intended for causal-predictive analysis, a condition for PLS.”</li> <li>• “PLS requires fewer statistical specifications and constraints on the data than the covariance-based strategy of LISREL (e.g., assumptions of normality).”</li> <li>• “PLS is robust for small to moderate sample sizes.”</li> <li>• “one of the constructs in our model...is formative and cannot be adequately modeled using covariance-based approaches due to the assumptions they impose; PLS, being component based, flexibly accommodates both formative and reflective indicators.” (p. 718)</li> </ul>
	Looney, Akbulut and Poston (2008)	<ul style="list-style-type: none"> <li>• N/A</li> </ul>
	Ilie, Van Slyke, Parikh and Courtney (2009)	<ul style="list-style-type: none"> <li>• N/A</li> </ul>
	Wallace, Johnson and Umesh (2009)	<ul style="list-style-type: none"> <li>• “PLS has seen increased use in supply chain and channels research.” (p. 883)</li> </ul>
	Park and Keil (2009)	<ul style="list-style-type: none"> <li>• “PLS analysis has been used in previous bad news reporting studies.” (p. 907)</li> </ul>

	Li, Chau and Lai (2010)	<ul style="list-style-type: none"> <li>• N/A</li> </ul>
	Martin, Guide Jr. and Craighead (2010)	<ul style="list-style-type: none"> <li>• “that is robust relative to small samples to provide more confidence in our results.” (p. 307)</li> </ul>
	Palvia, King, Xia and Palvia (2010)	<ul style="list-style-type: none"> <li>• N/A</li> </ul>
	Saeed, Abdinnour, Lengnick-Hall and Lengnick-Hall (2010)	<ul style="list-style-type: none"> <li>• “PLS was selected because it enables specification and testing of path models with latent constructs.” (p. 676)</li> </ul>
	Sarker, Sarker, Chatterjee and Valacich (2010)	<ul style="list-style-type: none"> <li>• “PLS does not require any assumptions of multivariate normality.”</li> <li>• “PLS works well with small-to-medium sample sizes.” (p. 909)</li> </ul>
	Saeed, Malhotra and Grover (2011)	<ul style="list-style-type: none"> <li>• N/A</li> </ul>
	Sarker, Sarker, Kirkeby and Chakraborty (2011)	<ul style="list-style-type: none"> <li>• N/A</li> </ul>
	Ray, Ow and Kim (2011)	<ul style="list-style-type: none"> <li>• “Using PLS allowed us to accurately measure three formative constructs in our model.” (p. 400).</li> </ul>
Entrepreneurship Theory and Practice (6)	Moreno and Casillas (2008)	<ul style="list-style-type: none"> <li>• “PLS allows the simultaneous modeling of relationships among multiple independent and dependent constructs and enables the researcher to construct unobservable variables measured by indicators (items).” (p. 517)</li> <li>• “PLS is a good tool for complex models in which the theory is not sufficiently developed.” (p. 524)</li> </ul>
	De Clercq and Rangarajan (2008)	<ul style="list-style-type: none"> <li>• “Because of its ability to model latent constructs in non-normal conditions and with small to medium sample sizes, PLS is gaining interest and use among researchers in various areas.” (p. 670)</li> </ul>
	Liñán and Chen (2009)	<ul style="list-style-type: none"> <li>• N/A</li> </ul>
	Brinckmann, Salomo and Gemuenden (2009)	<ul style="list-style-type: none"> <li>• “This approach allows us to (1) develop and test formative constructs, and (2) test for nomological validity by assessing performance effects of our competence constructs using PLS modeling.”</li> <li>• “In contrast to covariance-based, structural equation modeling techniques, the PLS approach yields more accurate results with limited sample sizes, variables do not have to follow standard distribution, and it allows formative construct specifications.”</li> <li>• “The PLS approach is especially suitable for explorative research settings.” (p. 232)</li> </ul>
	Lim, Morse, Mitchell and Seawright (2010)	<ul style="list-style-type: none"> <li>• “PLS is a structural equation modeling tool that allows us to simultaneously analyze multiple criterion and predictor constructs and analyze unobservable theoretical variables.”</li> <li>• “PLS accommodates constructs with formative indicators, avoiding the various statistical issues associated with covariance structure analysis tools such as LISREL.”</li> <li>• “PLS provides a powerful validity assessment tool that takes account of random and systematic measurement errors.”</li> <li>• “PLS is known for providing robust results, even in the presence of multicollinearity within blocks of manifest and between latent variables.”</li> <li>• “PLS is recommended for predictive Models...and is particularly suitable for conducting studies in the early stages of theory development and for testing comprehensive structural models.” (p. 503)</li> </ul>

	Brettel, Engelen, Müller and Schilke (2010)	<ul style="list-style-type: none"> <li>• “approach for estimation purposes and places minimal restrictions on sample size and residual distributions.”</li> <li>• “PLS was chosen to accommodate the relatively large number of constructs.”</li> <li>• “PLS has been shown to be well suited to the simultaneous analysis of reflective and formative constructs.” (p. 692)</li> </ul>
Journal of Management (1)	Ashill and Jobber (2010)	<ul style="list-style-type: none"> <li>• “PLS was chosen because of the small sample size for Sample 2 and the exploratory nature of the research.” (p. 1288)</li> </ul>
	Barthélemy and Quélin (2006)	<ul style="list-style-type: none"> <li>• “PLS was preferred over LISREL because it provides the opportunity to model latent variables even under conditions of non-normality and small size samples.” (p. 1786)</li> </ul>
	Echambadi, Campbell and Agarwal (2006)	<ul style="list-style-type: none"> <li>• “partial least squares (PLS) techniques have gained immense popularity in the management field in the last decade, in part due to their inherent abilities in testing complex theoretical structures.” (p. 1807)</li> <li>• “PLS is more appropriate to model constructs measured with formative indicators...and small sample sizes.”(p. 1808)</li> </ul>
	van Riel, Berens and Dijkstra (2009)	<ul style="list-style-type: none"> <li>• “PLS is an estimation method for structural equation models that is more suitable for formative scales than methods that rely on maximum likelihood estimation, such as LISREL”</li> <li>• “A PLS model always includes the relationships between items and their constructs as well as the hypothesized relationships between the constructs” (p. 1208)</li> </ul>
Journal of Management Studies (6)	Goederham, Minbaeva and Pedersen (2011)	<ul style="list-style-type: none"> <li>• N/A</li> </ul>
	Clarysse, Wright and Van de Velde (2011)	<ul style="list-style-type: none"> <li>• N/A</li> </ul>
	Ciabuschi, Dellestrand and Martín (2011)	<ul style="list-style-type: none"> <li>• “There were several reasons for choosing PLS. First, the research objectives and, to some extent, the exploratory nature of the study pointed in that direction.”</li> <li>• “the fact that some of the relationships have not been hypothesized before, makes PLS suitable.”</li> <li>• “the small size of our sample (85 observations) makes PLS an appropriate analytical technique, as it has been recommended for sample sizes of at least 30–100 cases.”</li> <li>• “Shapiro-Wilk statistic and normal probability plots showed a non-normal distribution of most of our variables. This also makes PLS suitable since it is a ‘soft modelling’ technique, i.e. it uses very general, soft distributional assumptions.”</li> <li>• “the inclusion of a second-order formative measure in the model makes PLS appropriate as it allows for the analysis of both formative and reflective constructs.”</li> <li>• “PLS can be appropriately used even when the residuals of the indicators and latent variables are correlated.” (p. 15-16)</li> </ul>
Long Range Planning (1)	Swoboda, Meierer, Foscht and Morschett (2011)	<ul style="list-style-type: none"> <li>• “To analyse the data we applied a partial least squares (PLS) approach, which is a widely accepted variance-based, descriptive and prediction-oriented approach to structural equation modelling.”</li> <li>• “In contrast to other structural equation modelling approaches, PLS holds weight relations that are used to estimate case values for the latent variables.”</li> <li>• “It accommodates models that combine formative and</li> </ul>

		reflective constructs and is recommended for analyzing small samples, and also does not rely on distributional assumptions.” (p. 280)
Management International Review (2)	Boehe (2010)	<ul style="list-style-type: none"> <li>• “Previous research has recommended to use PLS when sample sizes are small relative to the number of indicators used (below 200), for early stages of theory development, when the aim is prediction, and when formative indicators and non-normal data are used.” (p. 760)</li> </ul>
	Ciabuschi, Martín and Ståhl (2010)	<ul style="list-style-type: none"> <li>• “This data analysis method is suitable considering key aspects of the research design, such as the research objectives, the exploratory nature of the research, and the use of a formative construct.”</li> <li>• “the characteristics of the sample also made the method appropriate, in view of the small sample size and the non-normal distribution of the indicators.” (p. 482)</li> </ul>
Management Science (4)	Venkatesh and Agarwal (2006)	<ul style="list-style-type: none"> <li>• “PLS does not make distributional assumptions, unlike LISREL, and is therefore suitable for situations where the data might violate normality assumptions.”</li> <li>• “PLS allows the modeling of constructs with formative indicators.” (p. 375)</li> <li>• “the remaining latent variables are single-item measures.”</li> <li>• “The advantage of PLS as compared to structural equation modelling is sample size: because PLS does not model the measurement error associated with each item, fewer parameters are estimated and a smaller sample size is needed.” (p. 383)</li> </ul>
	Mitchell and Nault (2007)	<ul style="list-style-type: none"> <li>• “PLS uses least-squares estimation and accommodates both formative and reflective constructs in a research model.”</li> <li>• “It also places minimal demands on measurement scales and distributional assumptions.” (p. 1288)</li> </ul>
	Im and Rai (2008)	<ul style="list-style-type: none"> <li>• “We analyzed our data using partial least squares (PLS) because it allows for the use of formative indicators.” (p. 1317)</li> </ul>
	Xu, Venkatesh, Tam and Hong (2010)	
Organization Science (3)	Zott and Amit (2007)	<ul style="list-style-type: none"> <li>• N/A</li> </ul>
	Jarvenpaa and Majchrzak (2008)	<ul style="list-style-type: none"> <li>• N/A</li> </ul>
	Nambisan and Baron (2010)	<ul style="list-style-type: none"> <li>• “PLS allows simultaneous assessment of the measurement and the structural parameters of the model and places minimal demands on sample size and residual distributions.” (p. 563)</li> </ul>
Organization Studies (2)	Wiertz and de Ruyter (2007)	<ul style="list-style-type: none"> <li>• “PLS is exploratory in nature and tries to minimize the residual variance of the dependent variables. PLS therefore makes modest demands on measures compared with other SEM techniques.”</li> <li>• “This fits the exploratory research questions and the relatively small sample size of this study.”</li> <li>• “PLS allows specification of formative measures in the model.” (p. 342)</li> <li>• “PLS path modeling is component-based and therefore requires less stringent assumptions in terms of multivariate normality, measurement levels of the manifest variables, and sample size.”</li> </ul>
	Lui (2010)	<ul style="list-style-type: none"> <li>• “PLS path modeling might be superior to moderated regression analysis and covariance-based methods for testing moderating hypotheses.” (p. 364).</li> </ul>
Schmalenbach Business Review	Gerpott and Jakopin (2005)	<ul style="list-style-type: none"> <li>• N/A</li> </ul>

(2)	Sarstedt, Becker, Ringle and Schwaiger (2011)	<ul style="list-style-type: none"> <li>• “rely on information and classification criteria to select an appropriate number of segments to retain from the data.” (p. 34)</li> <li>• “studies...reveal that FIMIX-PLS has advantageous features for further differentiating and specifying the findings and interpretation of PLS path modeling analyses.” (p. 35)</li> <li>• “In this paper we contribute to the knowledge on PLS path modeling and FIMIX-PLS segmentation by conducting computational experiments that allow the researcher to examine the performance and robustness of alternative model selection criteria.” (p. 37)</li> </ul>
	Zott and Amit (2008)	<ul style="list-style-type: none"> <li>• “We conducted a...partial least squares (PLS) regression analysis in order to establish the discriminant validity of our business model and product market strategy constructs.” (p. 11-12)</li> </ul>
	Tiwana (2008)	<ul style="list-style-type: none"> <li>• N/A</li> </ul>
Strategic Management Journal (5)	Gruber, Heinemann, Brettel and Hungeling (2010)	<ul style="list-style-type: none"> <li>• “The PLS method has recently gained popularity among management researchers because it offers a reasonably straightforward way of testing complex theoretical structures.”</li> <li>• “We chose PLS as the most accepted variance-based structural equation modeling technique because it can accommodate models that combine formative and reflective constructs.” (p. 1342)</li> </ul>
	Crossland and Hambrick (2011)	<ul style="list-style-type: none"> <li>• “PLS is a form of structural equation modeling that is particularly useful for small samples.”</li> <li>• “PLS is particular useful for in early stages of theory development when the connections among variables have not been widely explored.” (p. 809)</li> </ul>
	Cheung, Myers and Mentzer (2011)	<ul style="list-style-type: none"> <li>• “The choice was based upon the fact that the primary concern of the study is with the prediction of a dependent endogenous variable.”</li> <li>• “PLS is also well suited to estimate a structural equation model when the model involves formative indicators.” (p. 13-14, online)</li> </ul>

Table 2 gives evidence for the growing interest in PLS use, particularly in the strategic management literature, which increasingly utilizes the PLS technique. In the field of strategic management, many authors cite the advantageous features offered by PLS in empirical and statistical analysis. This finding is true for both academic and practical research. The relevance of using PLS path modeling among these studies can be summarized as follows in five key advantages of PLS path modeling for the field of strategic management.

### Relevance and advantages of PLS in strategic management research and practice:

- (1) In general, PLS is an established and powerful technique that allows for the simultaneous assessment of the measurement and the structural parameters of the model.
- (2) PLS path modeling allows ample flexibility in handling various modeling problems. It avoids small sample size problems, places minimal restriction in terms of distributional assumptions or error terms, and has a minimal demand on measurement scales.
- (3) PLS accommodates models that combine formative and reflective constructs. For example, in the research field of success drivers and its interpretation (e.g., including the relationship between items and their constructs as well as the hypothesized relationship between the constructs), this is a substantial topic in strategic management.
- (4) An advantageous feature is the explorative nature of PLS. For explorative research settings and questions or for the early stages of theory development when the connections among variables have not been widely explored, PLS is particularly suitable. Therefore, PLS is a prediction-orientated approach for testing comprehensive structural models.
- (5) PLS path modeling can estimate very complex theoretical structures with a large number of constructs (with many latent and manifest variables).

More specifically, we examined the most often used reasons for using PLS among these studies. For this purpose, we excluded the studies in which the motivation for using PLS was not declared (N/A; 13 studies). Ultimately, we focused on 40 relevant studies, 22 of which (55%) used PLS because it places minimal restriction on sample size. Particularly for small

sample sizes (30-100 cases), PLS is an appropriate analytical technique. Twenty studies (50%) justified the use of PLS as related to statistical assumptions (e.g., distribution). In contrast to covariance structure analysis tools, PLS provides the opportunity to model variables even under conditions such as non-normality. Another reason for using PLS path modeling is that 22 studies (55%) involve formative indicators in their models. In the strategic management literature, many studies use this structural equation modeling technique to combine formative and reflective constructs. In line with the saying “we often do not know what we do not know“, twenty studies (50%) were motivated to use PLS based on the exploratory nature of the research. Many strategic management studies analyze unobservable theoretical variables and test complex models in which the theory is not sufficiently developed. It is also appropriate to evaluate the predictive validity of path models. When the aim is prediction or in an early stage of theory development, PLS was preferred over covariance-based techniques, such as LISREL. The latter two reasons for using PLS refer to complex theoretical structures and minimal demand on measurement scales. The authors of five studies (12.5%) state that PLS offers a reasonably straightforward way to examine highly complex models with a large number of constructs. An additional five strategic management studies (12.5%) selected PLS because it places minimal demands on measurement scales and allows for single-item measures. Beside these main reasons for using PLS in the context of strategic management research, there are also several additional reasons. Twelve studies (30%) highlight further advantages of using PLS in addition to other statistical tools (e.g., tests for nomological and discriminant validity or the presence of multicollinearity). Because PLS holds weight relations that are used to estimate case values for the latent variables, PLS might be superior for testing moderating or mediating hypotheses. Further, PLS was often used because it opens the possibility of an FIMIX-PLS segmentation and multi-group analyses.



## MODELING CAUSE-EFFECT RELATIONS: THE CASE OF BRAND PERCEPTION

To demonstrate the applicability of PLS-SEM and to illustrate related cause-effect relationship modeling, it is very useful to refer to a practical example. For the purposes of this paper, we present in the following sections an empirical study in the context of strategic brand management: the measurement and management of key drivers of brand perception.

### Step 1: Conceptualization and Hypotheses Development

The starting point of each causal modeling approach is the development of a conceptual framework (cf. Figure 1) with proposed cause-effect relationships in terms of hypotheses between the focus constructs. In our example, as presented in Table 3, we concentrate on the constructs of brand heritage, brand luxury, brand reputation and customer perceived value as potential key success drivers in strategic management.

TABLE 3

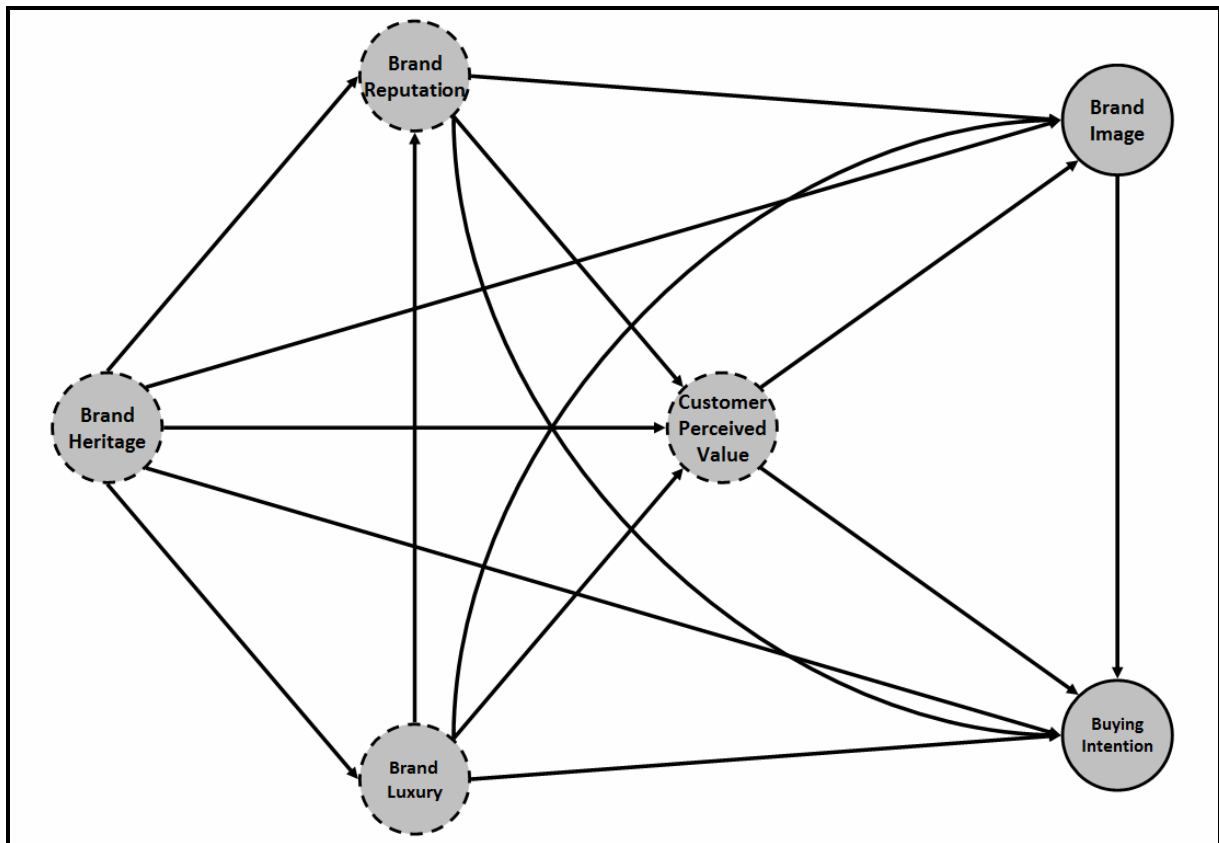
#### Construct Overview and Hypotheses

Construct	Basic Meaning	Key Dimensions	Hypothesized Relations
<b>Brand heritage</b>	<ul style="list-style-type: none"> <li>• “a dimension of a brand’s identity found in its track record, longevity, core values, use of symbols and particularly in an organizational belief that its history is important” (Urde et al., 2007: 4–5)</li> <li>• In contrast to a historical overview that is grounded only in the past, traditions and brand heritage embrace not only the time frame “the past” but also “the present” and “the future.” (Wiedmann et al., 2011a).</li> <li>• The heritage aspect represents longevity and sustainability as a promise to the stakeholders that the core values and performance of the brand are authentic and true (Urde, 2003)</li> </ul>	<ul style="list-style-type: none"> <li>• Bonding</li> <li>• Continuity</li> <li>• Credibility</li> <li>• Cultural Meaning</li> <li>• Cultural Value</li> <li>• Differentiation</li> <li>• Familiarity</li> <li>• Identity Meaning</li> <li>• Identity Value</li> <li>• Imagination</li> <li>• Knowledge</li> <li>• Myth</li> <li>• Orientation</li> <li>• Prestige</li> <li>• Success Images</li> </ul>	<p>H<sub>1a</sub>: Brand heritage has a positive effect on luxury brand perception.</p> <p>H<sub>1b</sub>: Brand heritage has a positive effect on brand reputation.</p> <p>H<sub>1c</sub>: Brand heritage has a positive effect on customer perceived value.</p> <p>H<sub>1d</sub>: Brand heritage has a positive effect on the perception of the brand in terms of a positive relation with brand image.</p> <p>H<sub>1e</sub>: Brand heritage has a positive effect on customer behavior in terms of a positive relation with buying intention.</p>

<b>Brand luxury</b>	<ul style="list-style-type: none"> <li>• Luxury brands enable consumers to satisfy psychological and functional needs. The psychological benefits are considered the main factor distinguishing luxury from non-luxury products (Nia and Zaichkowsky, 2000).</li> <li>• Luxury brands are those whose price and quality ratios are the highest in the market (McKinsey 1990), and even though the ratio of functionality to price might be low with regard to certain luxury goods, the ratio of intangible and situational utility to price is comparatively high (Nueno and Quelch, 1998).</li> <li>• Luxury brands compete based on the ability to evoke exclusivity, brand identity, brand awareness, and perceived quality from the consumer's perspective (Phau and Prendergast, 2000)</li> </ul>	<ul style="list-style-type: none"> <li>• Price</li> <li>• Usability</li> <li>• Utility</li> <li>• Uniqueness</li> <li>• Quality</li> <li>• Self-identity Value</li> <li>• Hedonism</li> <li>• Materialism</li> <li>• Conspicuousness</li> <li>• Recognition Value</li> </ul>	<p>H<sub>2a</sub>: Brand luxury has a positive effect on brand reputation.</p> <p>H<sub>2b</sub>: Brand luxury has a positive effect on perceived value of a brand.</p> <p>H<sub>2c</sub>: Brand luxury has a positive effect on brand image.</p> <p>H<sub>2d</sub>: Brand luxury has a positive effect on buying intention.</p>
<b>Brand reputation</b>	<ul style="list-style-type: none"> <li>• <i>“a corporate reputation is a stakeholder's overall evaluation of a company over time. This evaluation is based on the stakeholder's direct experiences with the company, any other form of communication and symbolism that provides information about the firm's actions and/or a comparison with the actions of other leading rivals”</i> (Gotsi and Wilson, 2001: 29)</li> <li>• <i>“a perceptual representation of a company's past action and future prospects that describes the firm's overall appeal to all its key constituents when compared with other leading rivals”</i> (Fombrun, 1996: 72)</li> <li>• Similarly, a positive reputation is an important aspect to create customer perceived value because as a multifaceted construct, it consists of four interrelated characteristics: credibility, reliability, responsibility, and trustworthiness (Fombrun and Shanley, 1990)</li> </ul>	<ul style="list-style-type: none"> <li>• Citizenship,</li> <li>• Governance</li> <li>• Innovation</li> <li>• Leadership</li> <li>• Performance</li> <li>• Product</li> <li>• Workplace</li> </ul>	<p>H<sub>3a</sub>: Brand reputation has a positive effect on customer perceived value.</p> <p>H<sub>3b</sub>: Brand reputation has a positive effect on brand image.</p> <p>H<sub>3c</sub>: Brand reputation has a positive effect on buying intention.</p>
<b>Customer perceived value</b>	<ul style="list-style-type: none"> <li>• As a context-dependent (Holbrook, 1994; Parasuraman, 1997), highly personal and multi-dimensional concept, customer perceived value can be defined as <i>“a customer's perceived preference for and evaluation of those product attributes, attribute performances, and consequences arising from use that facilitate (or block) achieving the customer's goal and purposes in use situations”</i> (Woodruff 1997: 142).</li> </ul>	<ul style="list-style-type: none"> <li>• Economic Value</li> <li>• Functional Value</li> <li>• Affective Value</li> <li>• Social Value</li> </ul>	<p>H<sub>4a</sub>: Customer perceived value has a positive effect on brand image.</p> <p>H<sub>4b</sub>: Customer perceived value has a positive effect on buying intention.</p>
<b>Brand</b>	<ul style="list-style-type: none"> <li>• As an important concept in marketing</li> </ul>	<ul style="list-style-type: none"> <li>• Unidimensional</li> </ul>	<p>H<sub>5</sub>: Brand image has a</p>

<b>Image</b>	and management, brand image is defined as “ <i>perceptions about a brand as reflected by the brand associations held in consumer memory</i> ” (Keller, 1993: 3)	positive effect on buying intention.
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**FIGURE 1**  
**Conceptual Model**



**Step 2: The Measurement Instrument**

Based on the conceptual model and related hypotheses, the question of item scaling has to be addressed to develop an appropriate measurement instrument. This aspect refers to the nature of the links between constructs and measures that can be conceptualized as either reflective or formative relationships. While reflective indicators are constructed on the assumption of reflecting the underlying construct, formative indicators are believed to cause the given

construct. In our conceptual model, we use four formative as well as two reflective constructs. To measure *brand image* and *buying intention*, we relied on established reflective scales from previous studies (e.g., Dean, 1999; Kirmani et al., 1999; Sen, et al., 2001). For capturing *brand heritage*, the formative scale developed by Wiedmann et al. (2011b) was used. To measure *brand reputation* as the second formative construct, we generated new conceptual items based upon the multidimensional models of the Reputation Quotient and the RepTrak™ (Fombrun et al., 2000; Ponzi et al., 2011; Reputation Institute, 2011). The next construct for which we generated a new measurement instrument based on formative indicators is *brand luxury* including the key elements of luxury value proposed by Wiedmann et al. (2009). Referring to the measurement of *customer perceived value* as a formative construct, we developed a single item for each of the four dimensions. The selected items stem from existing multi-item measures (e.g., Holbrook, 1999; Smith & Colgate 2007; Woodall, 2003; Woodruff, 1997) that have been deduced by conducting expert interviews. As systematic steps in the development of valid measurement instruments, our formative index construction followed the four steps suggested by Diamantopoulos & Winklhofer (2001): (i) content specification, (ii) indicator specification, (iii) indicator collinearity and (iv) external validity. All items were rated on a five-point Likert scale (*1=strongly disagree, 5=strongly agree*). For evaluating the external validity of the formative indicators, we included seven-point semantic differentials for (i) the *perceived extent of brand's tradition* (*1=not at all traditional, 7=very traditional*); (ii) the *perceived extent of brand's luxury* (*1=not at all luxury, 7=very luxury*); (iii) the *perceived extent of brand's reputation* (*1=not at all reputable, 7=very reputable*) and (iv) the *perceived extent of brand's usefulness* (*1=very negative, 7=very positive*). To ensure correct item generation, adaption and adjustment, we followed the guidelines of clarity, length, directionality, lack of ambiguity and avoidance of jargon (e.g., DeVellis, 1991; Spector, 1992). Regarding product context, all items were

specified to a luxury brand because the aspects of value and the idea of heritage are apparent in the luxury sector. Based on qualitative expert judgments and the quantitative brand awareness statistics of the German brand association 'Markenverband', we chose CHANEL, one of the world's leading luxury brands with a long, traditional brand history and a broad product range encompassing both haute couture fashion as well as accessible goods, such as accessories, makeup, jewelry, fragrances, and skincare among others.

### **Step 3: Data Collection and Sample**

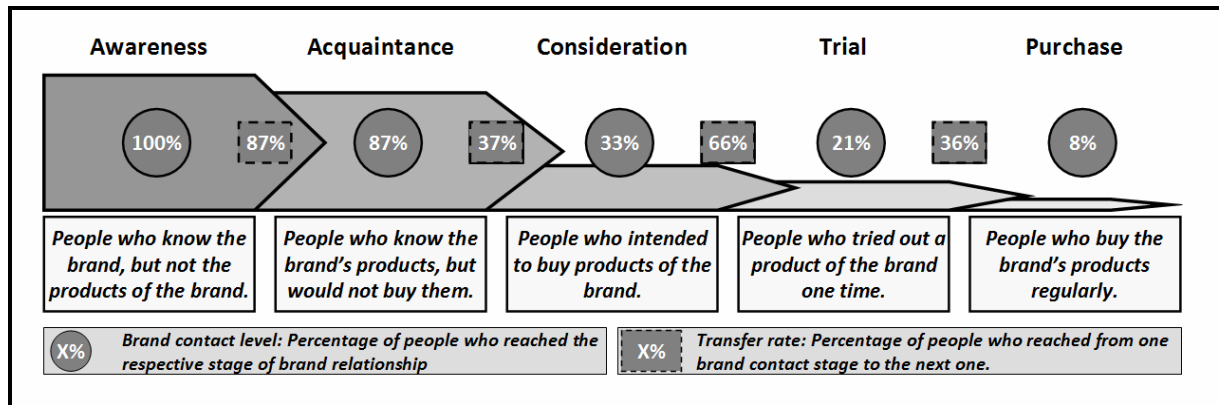
To investigate our proposed conceptual model, we employed a quantitative study within the group of the general public interested in luxury goods. For data collection, we used a web-based survey with a snowball sampling method. From May to June 2011, the recruitment of 1039 interviewees was organized offline by trained marketing students. They contacted potential respondents using their relative social network via e-mails and links on selective web pages (e.g., Facebook profile pages) with an invitation to actively participate in the online survey. In particular, the students were instructed to recruit respondents with an interest in luxury products, thus assuring sufficient product knowledge. Furthermore, the respondents should have exhibited different levels of brand experience related to the investigated brand CHANEL to ensure subgroup analysis concerning the brand perception over different brand contact levels. In sum, 912 interviewees finished the questionnaire completely (response rate: 87.8 percent).

**TABLE 4****Demographic Profile of the Sample**

<b>Variable</b>		<b>n</b>	<b>%</b>
<b>Age</b>	16 – 24 years	341	43.8
	25 – 29 years	142	18.2
	30 – 39 years	116	14.9
	40 – 49 years	74	9.5
	50 years +	102	13.1
	No answer	4	0.5
<b>Gender</b>	Male	323	41.5
	Female	454	58.3
	No answer	2	0.3
<b>Marital status</b>	Single	528	67.8
	Married	195	25.0
	Divorced	28	3.6
	Widowed	5	0.6
	No answer	23	3.0
<b>Education</b>	Not graduated from high school	8	1.0
	Lower secondary school	26	3.3
	Intermediate secondary school	130	16.7
	A-Levels	402	51.6
	University Degree	211	27.1
	No answer	2	0.3
<b>Occupation</b>	Full time	284	36.5
	Part-time	46	5.9
	Pensioner / retiree	24	3.1
	House wife / husband	20	2.6
	Job training	44	5.6
	Student	326	41.8
	Scholar	21	2.7
	Seeking work	9	1.2
	No answer	5	0.6

Respondents who did not know the brand and questionnaires with non-response items were excluded from the analysis, which led to a final sample of 779 cases. The interviewees were mostly female (58.3 percent), single (67.8 percent) and on average 31.21 years old (cf. Table 4). The over-representation of young and single female respondents may be attributed to the overall greater vested interest and experience in luxury goods and the brand CHANEL specifically.

**FIGURE 2**  
**Brand Funnel**



The levels of brand contact vary between the respondents; hence, sufficient variance in brand perception can be expected. In detail, we could distinguish between five categorized subgroups that are sufficiently large-scaled for further statistical analyses. The largest subgroup of our sample is 'acquaintance' (54.8 percent), and the smallest one is 'purchase' (7.7 percent). Figure 2 illustrates the subgroup distribution that relies on the brand funnel concept, the process of brand-consumer interaction and the conversion rate starting from brand knowledge as well as continuing through to consideration, buying intention, trial and finally, purchase.

#### **Step 4: Data Analysis and Results**

To empirically test our hypotheses, structural path modeling using a PLS approach was the preferred method of choice because it is well suited to achieve our three research objectives: 1) to test and validate a large and complex exploratory model including reflective and formative measures, 2) to compare subgroup samples with medium sizes, and 3) to provide diagnostic information for evaluating a brand's performance and for employing an importance-performance analysis (IPA) (Slack, 1994). In particular, we used the statistical software package SmartPLS 2.0 (Ringle et al., 2005) with case-wise replacement and a

bootstrapping procedure. In the subsequent sections, the PLS estimation results are presented following the two-step approach as recommended by Henseler et al. (2009) First, we briefly describe the evaluation of the measurement model (outer model), and second, the assessment of the structural model (inner model) is discussed. In an additional step, we estimate and compare the models of each subgroup in our sample.

**TABLE 5**  
**Manifest Variables of the Formative Measurement Models**

Brand Heritage	
BH_Continuity	<i>"This brand is very continuous."</i>
BH_Success_Images	<i>"This brand is related to images of success."</i>
BH_Bonding	<i>"I am bonded to this brand."</i>
BH_Orientation	<i>"This brand sets the valuation standard for other brands."</i>
BH_Cultural_Value	<i>"The products of this brand are a part of national treasure."</i>
BH_Cultural_Meaning	<i>"The products of this brand promote a certain way of living."</i>
BH_Imagination	<i>"I have an absolutely clear imagination of this brand."</i>
BH_Familiarity	<i>"My familiarity with this brand is very high."</i>
BH_Myth	<i>"This brand has a strong cultural meaning."</i>
BH_Credibility	<i>"This Brand represents honesty and truthfulness."</i>
BH_Knowledge	<i>"This brand is highly known in the society."</i>
BH_Identity_Value	<i>"This Brand has a strong brand identity."</i>
BH_Identity_Meaning	<i>"If somebody praises this brand, to me, it is a personal compliment."</i>
BH_Differentiation	<i>"This brand is unique compared to other brands."</i>
BH_Prestige	<i>"This brand has a very good reputation."</i>
Brand Luxury	
LX_Price	<i>"This brand is worth its price."</i>
LX_Usability	<i>"This brand makes life more attractive."</i>
LX_Uniqueness	<i>"This brand is very exclusive."</i>
LX_Quality	<i>"This brand is very valuable."</i>
LX_Self_Identity	<i>"This brand emphasizes the personality of its owner."</i>
LX_Utility	<i>"This brand stands for usefulness."</i>
LX_Hedonism	<i>"This brand stands for sensuality."</i>
LX_Materialism	<i>"This brand evokes the desire to possess it."</i>
LX_Conspicuousness	<i>"This brand gives its owner a social recognition."</i>
LX_Recognition	<i>"This brand stands for people who succeeded in their life."</i>
Brand Reputation	
REP_Citizenship	<i>"This brand is highly responsible."</i>
REP_Governance	<i>"The transparency of this brand is very good."</i>
REP_Innovation	<i>"The innovation strength of this brand is very high."</i>
REP_Leadership	<i>"The leadership of this brand acts very professional."</i>
REP_Performance	<i>"This brand is very successful."</i>
REP_Product	<i>"The products of this brand are highly qualitative."</i>
REP_Workplace	<i>"This brand is a very good place to work for."</i>
Customer Perceived Value	
CPV_affective	<i>"This brands evokes positive perceptions."</i>



CPV\_economic  
 CPV\_functional  
 CPV\_social

“This brand offers a lot for its price.”  
 “The products of this brand are very suitable.”  
 “People who own this brand will be seen in a positive light.”

**PLS-based evaluation of the formative measurement model.** The manifest variables of the four formative constructs in our model are presented in Table 5. Given that formative measures cannot be assessed using conventional statistical evaluation criteria for reflective measures (Hair et al., 2011), we followed the recommendations of Diamantopoulos et al. (2008). As shown in Table 6, most formative indicator’s weights are significant and higher than .1. However, except for the indicators of *customer perceived value*, there are measures that could not meet these restrictions. Nevertheless, from a theory-driven perspective, these indicators are not omitted from further analyses due to their information-based relevance to cover all facets of the corresponding constructs (Cenfetelli and Bassellier, 2009).

**TABLE 6**  
**Bootstrapping Results for the Outer Weights**

Formative Indicator → LV	Original Sample	Sample Mean	Standard Deviation	Standard Error	T Statistics
BH_Bonding → Brand Heritage	0.177	0.175	0.043	0.043	4.169
BH_Continuity → Brand Heritage	0.032	0.038	0.026	0.026	1.218
BH_Credibility → Brand Heritage	0.168	0.167	0.039	0.039	4.299
BH_Cultural_Meaning → Brand Heritage	0.060	0.061	0.035	0.035	1.711
BH_Cultural_Value → Brand Heritage	0.180	0.179	0.036	0.036	5.059
BH_Differentiation → Brand Heritage	0.068	0.070	0.035	0.035	1.918
BH_Familiarity → Brand Heritage	0.167	0.169	0.048	0.048	3.496
BH_Identity_Meaning → Brand Heritage	0.128	0.127	0.033	0.033	3.884
BH_Identity_Value → Brand Heritage	0.100	0.099	0.038	0.038	2.657
BH_Imagination → Brand Heritage	0.081	0.081	0.036	0.036	2.264
BH_Knowledge → Brand Heritage	0.039	0.042	0.026	0.026	1.501
BH_Myth → Brand Heritage	-0.009	-0.029	0.022	0.022	0.401
BH_Orientation → Brand Heritage	0.117	0.116	0.033	0.033	3.547
BH_Prestige → Brand Heritage	0.182	0.182	0.045	0.045	4.046
BH_Success_Images → Brand Heritage	0.092	0.092	0.035	0.035	2.608
LX_Conspicuousness → Brand Luxury	0.022	0.036	0.026	0.026	0.851
LX_Hedonism → Brand Luxury	0.208	0.207	0.035	0.035	6.026
LX_Materialism → Brand Luxury	0.381	0.382	0.040	0.040	9.639
LX_Price → Brand Luxury	0.137	0.135	0.038	0.038	3.656

LX_Quality → Brand Luxury	0.145	0.144	0.037	0.037	3.908
LX_Recognition → Brand Luxury	0.221	0.219	0.036	0.036	6.138
LX_Self_Identity_Value → Brand Luxury	0.059	0.059	0.031	0.031	1.914
LX_Uniqueness → Brand Luxury	-0.036	-0.042	0.029	0.029	1.240
LX_Usability → Brand Luxury	0.117	0.117	0.037	0.037	3.159
LX_Utility → Brand Luxury	0.272	0.271	0.034	0.034	8.055
REP_Citizenship → Brand Reputation	0.187	0.185	0.050	0.050	3.777
REP_Governance → Brand Reputation	0.192	0.192	0.047	0.047	4.094
REP_Innovation → Brand Reputation	0.113	0.112	0.043	0.043	2.606
REP_Leadership → Brand Reputation	0.084	0.087	0.046	0.046	1.817
REP_Performance → Brand Reputation	0.007	0.044	0.033	0.033	0.214
REP_Product → Brand Reputation	0.692	0.690	0.044	0.044	15.676
REP_Workplace → Brand Reputation	-0.020	-0.041	0.030	0.030	0.658
CPV_affective → Customer Perceived Value	0.484	0.482	0.042	0.042	11.513
CPV_economic → Customer Perceived Value	0.368	0.368	0.038	0.038	9.792
CPV_functional → Customer Perceived Value	0.278	0.278	0.037	0.037	7.424
CPV_social → Customer Perceived Value	0.110	0.109	0.038	0.038	2.885

Referring to the problem of multicollinearity (indicator collinearity), the maximum variance inflation values (VIF) for brand heritage, brand reputation, brand luxury and customer perceived value are 2.69, 1.79, 1.72 and 1.99, respectively. Hence, in all cases the VIF was below the recommended cutoff value of 10 (Diamantopoulos and Winklhofer, 2001), suggesting that multicollinearity does not pose a problem in our study. Additionally, the external validity of all formative indicators was ensured by assessing the significance of the correlation with an overall measure that summarizes the entire scope of the corresponding construct. All formative indicators are significantly correlated with the adequate overall measure, suggesting external validity (cf. Table 7).

**TABLE 7**  
**Test for Multicollinearity and External Validity**

Formative Indicators	VIF	Spearman's rank correlation coefficient
BH_Continuity	1.56	0.339***
BH_Success_Images	1.63	0.220***
BH_Bonding	2.69	0.131***
BH_Orientation	1.62	0.241***
BH_Cultural_Value	1.77	0.261***
BH_Cultural_Meaning	1.71	0.240***
BH_Imagination	1.52	0.311***
BH_Familiarity	2.56	0.145***
BH_Myth	1.70	0.350***
BH_Credibility	1.61	0.239***

BH_Knowledge	1.20	0.130***
BH_Identity_Value	2.02	0.330***
BH_Identity_Meaning	1.48	0.151***
BH_Differentiation	1.94	0.261***
BH_Prestige	1.88	0.293***
LX_Price	1.53	0.478***
LX_Usability	1.54	0.326***
LX_Uniqueness	1.56	0.480***
LX_Quality	1.67	0.486***
LX_Self_Identity	1.27	0.258***
LX_Utility	1.18	0.104***
LX_Hedonism	1.49	0.420***
LX_Materialism	1.70	0.446***
LX_Conspicuousness	1.69	0.365***
LX_Recognition	1.72	0.412***
REP_Citizenship	1.58	0.340***
REP_Governance	1.45	0.244***
REP_Innovation	1.48	0.259***
REP_Leadership	1.64	0.328***
REP_Performance	1.67	0.435***
REP_Product	1.79	0.431***
REP_Workplace	1.36	0.221***
CPV_affective	1.99	0.610***
CPV_economic	1.62	0.558***
CPV_functional	1.39	0.398***
CPV_social	1.65	0.477***

Significance: \*\*\* p = 0.01; \*\* p = 0.05; \* p = 0.10

**PLS-based evaluation of the reflective measurement models.** The manifest variables that are reflective indicators of the given constructs are reported in Table 8. The loadings of all items are statistically significant and exceed the common threshold of .7 (cf. Table 9), indicating item reliability (Carmines & Zeller, 1979; Hulland, 1999). Likewise, the Cronbach's alphas range from .84 to .93, the composite reliability scores range from .93 to .97, and the average variance extracted (AVE) estimates range from 86% to 94% and thus, exhibit commonly recommended values (Bagozzi & Yi, 1988, Nunnally & Bernstein, 1994).

**TABLE 8**  
**Manifest Variables of the Reflective Measurement Models**

Brand Image	
BPB_Image_01	<i>“I like this brand very much.”</i>
BPB_Image_02	<i>“This brand is really likeable.”</i>
Buying Intention	
BPB_Intention_01	<i>“I intend to buy products from this brand in the future.”</i>
BPB_Intention_02	<i>“I am aiming to prospectively buy products from this brand.”</i>

Finally, we used the Fornell-Larcker criterion to test the discriminant validity of both reflective constructs. The criterion requires that the AVE of each construct should be higher than the squared correlation with any another construct (Fornell & Larcker, 1981). Each of the latent variables meets the criterion requirements. Consequently, our reflective measures can be regarded as highly reliable and valid.

**TABLE 9**  
**Assessing the Reflective Measurement Models**

	Factor Loadings	Average Variance Explained (AVE)	Cronbachs Alpha	Composite Reliability	Fornell-Larcker-Criterion (AVE > Corr <sup>2</sup> )
Brand Image	0.923 – 0.934	86%	0.841	0.926	0.86 > 0.54
Buying Intention	0.967 – 0.968	94%	0.932	0.967	0.94 > 0.54

**PLS-based evaluation of the structural model.** In the next step, we evaluated the inner model with respect to the variance accounted for and the predictive relevance of the exogenous latent variables. In accordance with Chin (1998), the coefficients of determination of the endogenous latent variables ( $R^2$ ) for *brand reputation*, *brand luxury*, *customer*

*perceived value, brand image and buying intention* reveal moderate to substantial levels, with values at .449, .616, .564, .615 and .588, respectively (cf. Table 10).

**TABLE 10**  
**Assessing the Structural Model**

Endogenous LV	R <sup>2</sup>	Q <sup>2</sup>
Brand Luxury	0.616	0.228
Brand Reputation	0.449	0.189
Customer Perceived Value	0.564	0.342
Brand Image	0.615	0.526
Buying Intention	0.588	0.546

Moreover, we assessed Stone-Geisser's Q<sup>2</sup> (Geisser, 1974; Stone, 1974) using a blindfolding procedure to compute the cross-validated redundancy (Tenenhaus et al., 2005). As shown in Table 10, the Q<sup>2</sup>-values are higher than zero for all endogenous latent variables. Hence, these results suggest the predictive power of our model. To evaluate the postulated hypotheses between the latent variables of our model, we applied a nonparametric bootstrapping procedure (individual sign changes, 779 cases and 3100 subsamples).

**TABLE 11**  
**Bootstrapping Results for the Structural Relations**

Exogenous LV → Endogenous LV	Original Sample	Sample Mean	Standard Deviation	Standard Error	T Statistics
Brand Heritage → Brand Luxury	0.785	0.786	0.015	0.015	53.076
Brand Heritage → Brand Reputation	0.444	0.449	0.044	0.044	10.006
Brand Heritage → Customer Perceived Value	0.234	0.240	0.047	0.047	5.000
Brand Heritage → Brand Image	0.186	0.190	0.044	0.044	4.220
Brand Heritage → Buying Intention	0.234	0.239	0.043	0.043	5.421
Brand Luxury → Brand Reputation	0.263	0.262	0.047	0.047	5.655
Brand Luxury → Customer Perceived Value	0.328	0.327	0.041	0.041	7.954
Brand Luxury → Brand Image	0.158	0.160	0.043	0.043	3.657
Brand Luxury → Buying Intention	0.094	0.096	0.041	0.041	2.327
Brand Reputation → Customer Perceived Value	0.284	0.281	0.039	0.039	7.336
Brand Reputation → Brand Image	0.174	0.174	0.033	0.033	5.290
Brand Reputation → Buying Intention	-0.087	-0.086	0.031	0.031	2.792
Customer Perceived Value → Brand Image	0.379	0.373	0.041	0.041	9.227
Customer Perceived Value → Buying Intention	0.067	0.066	0.036	0.036	1.837
Brand Image → Buying Intention	0.519	0.514	0.036	0.036	14.354

Table 11 provides the estimated path coefficients. In hypotheses H<sub>1a</sub> to H<sub>1e</sub>, we focused on the influence of *brand heritage* on *brand luxury*, *brand reputation*, *customer perceived value*, *brand image* and *buying intention*. The analysis results reveal significant positive effects ( $p < .01$ ) of the exogenous variable *brand heritage* on all related endogenous variables in support of H<sub>1a</sub> to H<sub>1e</sub>. Specifically, *brand heritage* has a strong impact on *brand luxury* (path coefficient: .785) as well as on *brand reputation* (path coefficient: .444). In hypotheses H<sub>2a</sub> to H<sub>2d</sub>, we proposed a positive influence of *brand luxury* on the related endogenous constructs. We found evidence for a positive and significant effect of *brand luxury* on *brand reputation*, *customer perceived value* and *brand image* ( $p < .01$ ), with the impact on *customer perceived value* being the strongest (path coefficient: .328). In contrast, the path coefficient from *brand luxury* on *buying intention* could not exceed the suggested threshold of .1 by Lohmöller (1989). Thus, the analysis results provide full support for H<sub>2a</sub> to H<sub>2c</sub>, but no support for H<sub>2d</sub>. Referring to the hypotheses H<sub>3a</sub> to H<sub>3c</sub>, we postulated a positive influence of *brand reputation* on *customer perceived value*, *brand image* and *buying intention*. The path estimates show that *brand reputation* significantly ( $p < .01$ ) drives *customer perceived value* (path coefficient: .284) as well as *brand image* (path coefficient: .174). In contrast to this, the relationship between *brand reputation* and *buying intention* lies below the .1 cutoff. Therefore, H<sub>3a</sub> and H<sub>3b</sub> can be regarded as supported, but not H<sub>3c</sub>. Considering the suggested impact of *customer perceived value* on *brand image* and *buying intention* (H<sub>4a</sub> and H<sub>4b</sub>), the positive effect on *brand image* is strong (path coefficient: .379) and significant ( $p < .01$ ), but the path estimate to *buying intention* is below the .1 level. Thus, our findings are supportive of H<sub>4a</sub>, but not of H<sub>4b</sub>. Finally, in hypothesis H<sub>5</sub>, we postulated a positive effect of *brand image* on *buying intention*. As described above, *brand heritage*, *brand luxury*, *brand reputation* and *customer perceived value* were shown to have significant positive influences on *brand image*. In line with prior research in the field of strategic brand management (e.g.,

Keller, 2003), it appears that *brand image* acts as an accumulator in which the perception of essential brand attributes is saved. Stressing the crucial role of *brand image* as a key element for successful strategic brand management and supporting hypothesis H<sub>5</sub>, our results reveal a strong (path coefficient: .519) and significant influence ( $p < .01$ ) of *brand image* on *buying intention*.

### **Step 5: Additional Results – Multi-group Analysis**

**Robustness check.** In our introduced complex model, which is widely supported by the analysis results, a similar perception and behavior intention towards the investigated brand was implied across all interviewed respondents in the sample. However, a precise multi-group analysis is an appropriate basis for efficient strategic brand management as well as accurate marketing positioning and controlling. Because we can distinguish in our sample between respondents with different brand relationships to CHANEL, we also investigated potential differences in the constructs' total effects (i.e., significant direct and indirect effects) on *buying intention* among the five identified subgroups. Besides possible discrepancies in the total effects, the differences in the R<sup>2</sup>- and Q<sup>2</sup>-values are of interest. As shown in Table 12, the subgroup data analysis reveals moderate to substantial R<sup>2</sup>-values ranging from .40 (subgroup: '*consideration*', construct: *brand reputation*) to .72 (subgroup: '*purchase*', construct: *brand luxury*). Furthermore, all Q<sup>2</sup>-values lie clearly above zero. Thus, the comparison results emphasize the predictive power of our model once more.

**TABLE 12**

**Assessing the Structural Model for any Brand Relationship**

Brand Relationship Endogenous LV	Awareness		Acquaintance		Consideration		Trial		Purchase	
	R <sup>2</sup>	Q <sup>2</sup>	R <sup>2</sup>	Q <sup>2</sup>	R <sup>2</sup>	Q <sup>2</sup>	R <sup>2</sup>	Q <sup>2</sup>	R <sup>2</sup>	Q <sup>2</sup>
Brand Luxury	0.577	0.236	0.582	0.202	0.578	0.118	0.541	0.198	0.722	0.217
Brand Reputation	0.510	0.291	0.401	0.148	0.400	0.109	0.458	0.171	0.506	0.134
Customer Perceived Value	0.449	0.278	0.520	0.298	0.559	0.280	0.591	0.336	0.665	0.370
Brand Image	0.544	0.452	0.511	0.431	0.550	0.324	0.628	0.496	0.677	0.431
Buying Intention	0.412	0.363	0.406	0.351	0.624	0.537	0.597	0.555	0.654	0.567

With regard to the total effects of all formative exogenous variables on buying intention as a key performance indicator, *brand heritage* has a strong and significant total effect on *buying intention* in view of all subgroups, as illustrated in Table 13. The total effect of *brand luxury* on *buying intention* is strong and significant referring to all subgroups, except for the group ‘*awareness*’. In contrast, a total effect of *brand reputation* on *buying intention* was revealed only for the subgroup ‘*consideration*’, but not for the other groups. However, the total effect of *customer perceived value* on *buying intention* varies between the subgroups. We found strong and significant total effects regarding the subgroups ‘*awareness*’, ‘*acquaintance*’ and ‘*purchase*’, but the effects in the groups ‘*consideration*’ and ‘*trial*’ were not significant.

**TABLE 13**

**Total Effects**

Brand Contact Level Formative exogenous LV	Awareness	Acquaintance	Consideration	Trial	Purchase
	<i>Total Effect on Buying Intention</i>	<i>Total Effect on Buying Intention</i>	<i>Total Effect on Buying Intention</i>	<i>Total Effect on Buying Intention</i>	<i>Total Effect on Buying Intention</i>
Brand Heritage	0.38***	0.54***	0.71***	0.61***	0.71***
Brand Luxury	0.14	0.19***	0.27**	0.40***	0.37*
Brand Reputation	-0.03	0.06	0.25***	0.13	-0.07
Customer Perceived Value	0.44***	0.19***	0.13	0.07	0.39**

Significance: \*\*\* p = 0.01; \*\* p = 0.05; \* p = 0.10

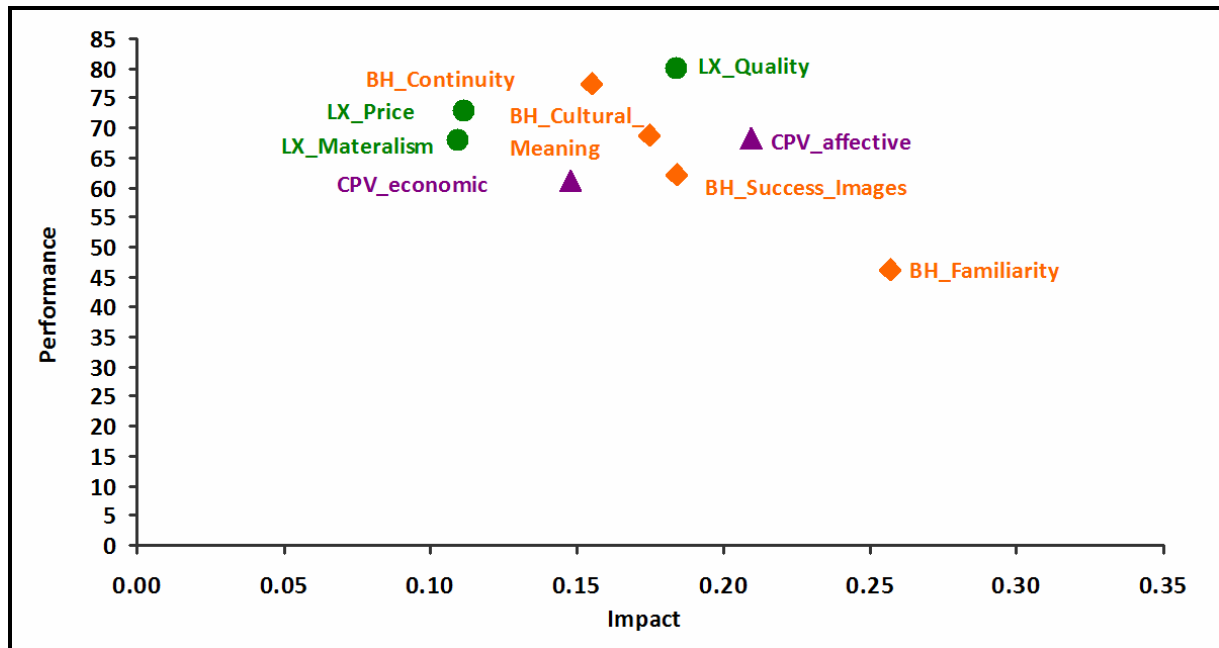
**Importance-Performance Analysis.** To demonstrate the applicability of PLS in providing deeper insights for strategic brand management, we employed an importance-



performance analysis (Slack, 1994) on an indicator level for each of the five subgroups. Based on the PLS estimates for the relations in the conceptual model (i.e., the importance of each latent/manifest variable) and the constructs' average value (i.e., the performance of each latent/manifest variable), the quality and effectiveness of decision making in strategic management can be observed and improved using individual priority maps. Specifically, particular areas of improvement can be identified, thus potentially assisting brand managers to develop effective brand programs (Eskildsen & Kristensen, 2006; Martilla & James, 1977): Illustrated in a data-centered importance-performance map, the causal knowledge about both average performance measures and average impact scores facilitates the development of strategic objectives as well as the assessment of the actual performance of business operations. Referring to our empirical database and the context of brand management, to identify future strategic opportunities and manage the key drivers of business performance, the importance-performance map (priority map) can be constructed as shown in Figure 3, which is exemplarily for the subgroup 'purchase' with regard to the key performance indicator buying intention.

**FIGURE 3**

**Priority Map for the subgroup ‘purchase’**



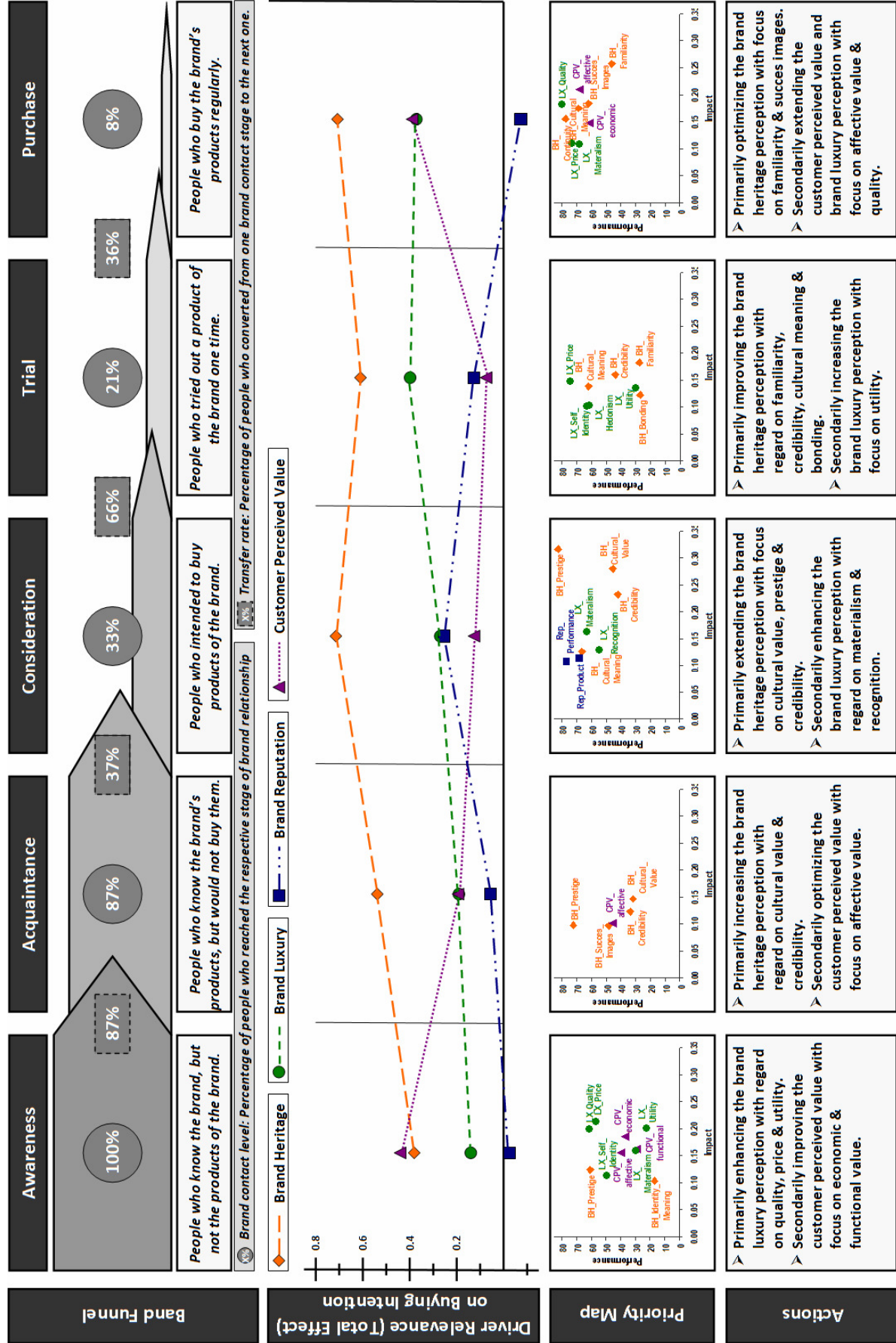
**MANAGERIAL IMPLICATIONS: THE IMPLEMENTATION OF BRAND PERCEPTION COCKPIT**

The primary goal of this study was to demonstrate the application of PLS-SEM in strategic management. Based on the analysis of complex cause-effect relationships as described in the paragraphs above, decision-makers can uncover and leverage the key performance drivers in a certain business area appropriately. Referring to our study context of brand management and considering the interplay between strategic goals and consumer perception, such a comprehensive strategic management approach can be implemented in a brand perception cockpit, as illustrated in Figure 4.

As an integrated instrument panel, the brand cockpit can be understood as an individual navigation device in a turbulent economic environment and facilitates effective brand management. To ensure that limited resources are invested in these actions that are proven

impact factors, brand managers should concentrate on the brand cockpit to set priorities, identify causal relationships, develop appropriate measures and transform strategic objectives into effective actions. Each stage of the brand cockpit aims to maximize the value-based brand perception, starting from brand awareness to brand loyalty, and illustrates the conversion from potential to actual customers. Based on the insights of this control panel, decision-makers have the ability to identify possible bottlenecks and opportunities for improvement that are prioritized in view of the cause-effect relations that have been analyzed using PLS-SEM.

FIGURE 4: Brand Perception Cockpit



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