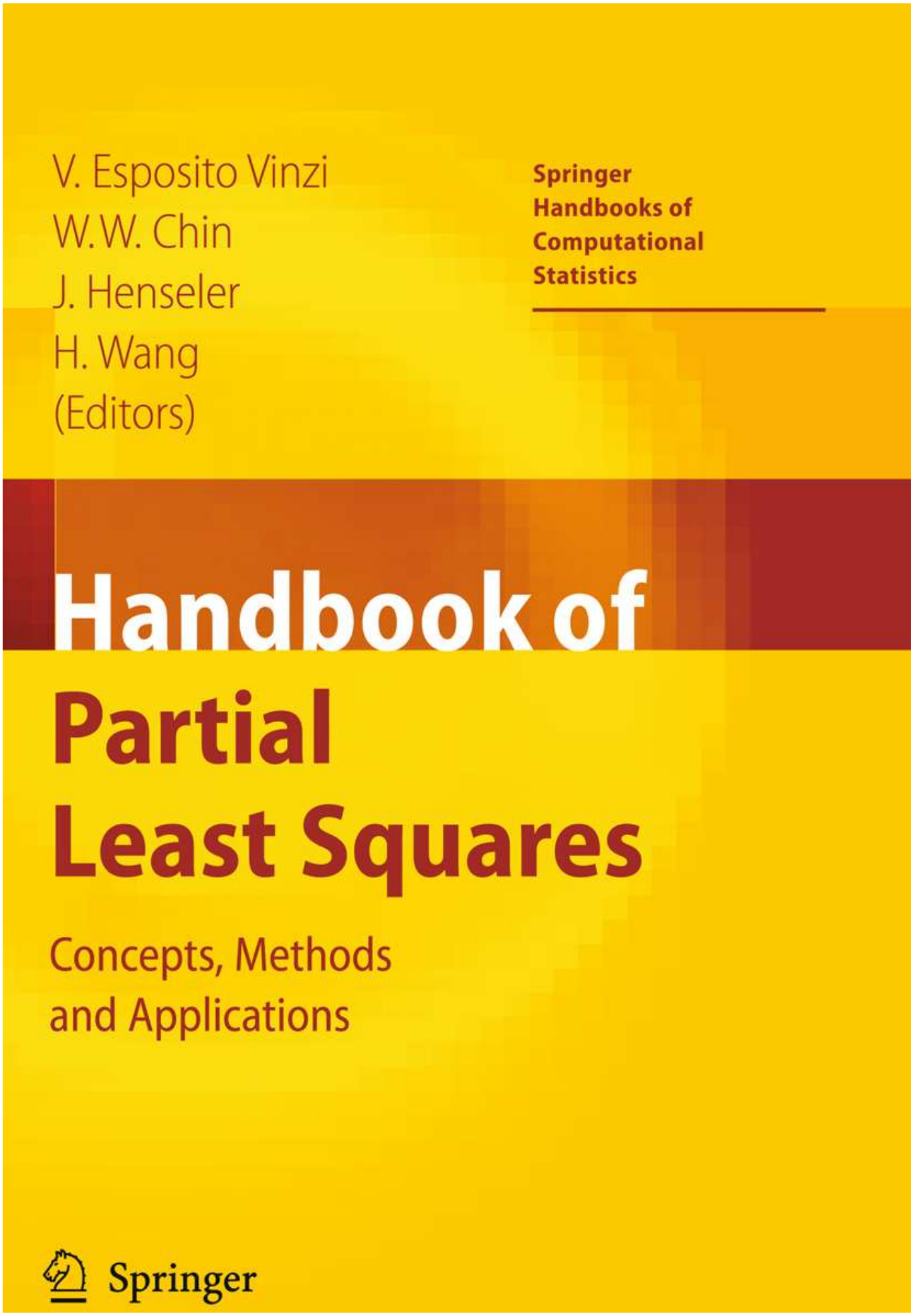
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Editor-in-Chief
Vincenzo Esposito Vinzi
ESSEC Business School of Paris and Singapore
Department of Information Systems & Decision Sciences
Avenue Bernard Hirsch - B.P. 50105
95021 Cergy-Pontoise Cedex France
vinzi@essec.fr

Jörg Henseler
Nijmegen School of Management
Institute for Management Research
Radboud Universiteit Nijmegen
6500 HK Nijmegen
The Netherlands
j.henseler@fm.ru.nl

Editors
Wynne W. Chin
Bauer Faculty Fellow
Department of Decision and Information Sciences
C.T. Bauer College of Business
334 Melcher Hall, room 280D
University of Houston
Houston, Texas 77204-6282
wchin@uh.edu

Huiwen Wang
School of Economic Management
BeiHang University
37, XueYuan Road, HaiDian District
Beijing 100191
P. R. China
wanghw@vip.sina.com

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Contents

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List of Contributors

Sönke Albers Institute of Innovation Research, Christian-Albrechts-University at Kiel, Westring 425, 24098 Kiel, Germany, albers@bwl.uni-kiel.de

Maria H. Almeida Faculty of Economics, New University of Lisbon, Campus de Campolide, 1099-032 Lisbon, Portugal, mhalmeida@fe.unl.pt

Silvano Amato Dipartimento di Matematica e Statistica, Università degli Studi di Napoli "Federico II", Via Cintia 26, Complesso Monte S. Angelo, 80126 Napoli, Italy, silvano.amato@gmail.com

Francisco Arteaga Department of Statistics, Universidad Católica de Valencia San Vicente Martir, Guillem de Castro, 175, Valencia 46008, Spain, francisco.arteaga@ucv.es

Carmen Barroso Management and Marketing Department, University of Seville, Ramón y Cajal, 1, 41018 Sevilla, Spain, barroso@us.es

Silvia Boßow-Thies Capgemini Telecom Media and Networks Deutschland GmbH, Neues Kanzler Eck 21, 10719 Berlin, Germany, silvia.bossow-thies@capgemini.com

Gabriel Cepeda Carrión Departamento de Administración de Empresas y Marketing, Universidad de Sevilla, Ramón y Cajal, 1, 41018 Sevilla, Spain, gabi@us.es

Wynne W. Chin Department of Decision and Information Sciences, Bauer College of Business, University of Houston, TX, USA, wchin@uh.edu

Pedro S. Coelho ISEGI – New University of Lisbon, Campus de Campolide, 1070-032 Lisbon, Portugal, psc@isegi.unl.pt

Clara Cordeiro Department of Mathematics, FCT, University of Algarve, Campus de Gambelas, 8005-139 Faro, Portugal, ccordei@ualg.pt

Sébastien Crochemore Materials Engineering Department, Technocentre Renault 1, avenue du Golf, API TCR LAB 252, 78 288 Guyancourt Cedex, France, sebastien.crochemore@renault.com

Ahmad Daryanto Department of Business Analysis, Systems and Information Management, Newcastle Business School, City Campus East, Northumbria University, Newcastle upon Tyne, NE1 8ST, UK, ahmad.daryanto@northumbria.ac.uk

Ko de Ruyter Department of Marketing and Marketing Research, Maastricht University, P.O. Box 616 6200 MD, The Netherlands, k.deruyter@mw.unimaas.nl

Jens Dibbern Department of Information Engineering, Institute of Information Systems, University of Bern, Engehaldenstr. 8, Room 204, 3012 Bern, Switzerland, jens.dibbern@iwi.unibe.ch

Theo K. Dijkstra SNS Asset Management, Research and Development, Pettelaarpark 120, P.O. Box 70053, 5201 DZ 's-Hertogenbosch, The Netherlands, theo.dijkstra@snsam.nl
and
University of Groningen, Economics and Econometrics, Zernike Complex, P.O. Box 800, 9700 AV, Groningen, The Netherlands, t.k.dijkstra@rug.nl

Paulo Alexandre de Oliveira Duarte Departamento de Gestão e Economia, Universidade da Beira Interior, Estrada do Sineiro, 6200-209 Covilhã, Portugal, pduarte@ubi.pt

Markus Eberl Senior Consultant Models and Methods, TNS Infratest Forschung GmbH, Landsberger Straße 338, 80687 München, Germany, markus.eberl@tns-infratest.com

Andreas Eggert University of Paderborn, Warburger Str. 100, 33098 Paderborn, Germany, andreas.eggert@notes.upb.de

Lennart Eriksson Umetrics Inc, 17 Kiel Ave, Kinnelon, NJ 07405, USA, Lennart.eriksson@umetrics.com

Jacob Eskildsen School of Business, University of Aarhus, Haslegaardsvej 10, 8210 Aarhus V, Denmark, Eskildsen@asb.dk

Vincenzo Esposito Vinzi Dept. of Information Systems and Decision Sciences ESSEC Business School of Paris,
Avenue Bernard Hirsch – B.P. 50105, 95021 Cergy-Pontoise, Cedex, France, vinzi@essec.fr

Thierry Fahmy Addinsoft, 40 rue Damrémont, 75018 Paris, France, fahmy@xlstat.com

Georg Fassott Department of Marketing, University of Kaiserslautern, Postfach 30 49, 67653 Kaiserslautern, Germany, fassott@wiwi.uni-kl.de

Martina González Gallarza Faculty of Economics, Department of Marketing, Universitat de Valencia, Avenida de los Naranjos s/n, Valencia 46022, Spain, martina.gallarza@uv.es

Ina Garnefeld University of Paderborn, Warburger Str. 100, 33098 Paderborn, Germany, ina.garnefeld@notes.upb.de

Irene Gil Department of Marketing, Universitat de València, Avenida de los Naranjos s/n, Valencia 46022, Spain, irene.gil@uv.es

Oliver Götz University of Münster, Marketing Centrum Münster, Institute of Marketing, Am Stadtgraben 13-15, 48143 Münster, Germany, o.goetz@uni-muenster.de

Dwayne D. Gremler Department of Marketing, College of Business Administration, Bowling Green State University, Bowling Green, OH 43403, USA, gremler@cba.bgsu.edu

Christiane Guinot Biometrics and Epidemiology unit, C.E.R.I.E.S, 20 rue Victor Noir, 92521 Neuilly sur Seine, France, christiane.guinot@ceries-lab.com
and
Computer Science Laboratory, Ecole Polytechnique, University of Tours, France

Mohamed Hanafi Unité Mixte de Recherche (ENITIAA-INRA) en Sensométrie et Chimiométrie, ENITIAA, Rue de la Géraudière – BP 82225, Nantes 44322, Cedex 3, France, hanafi@enitiaa-nantes.fr

Sabrina Helm University of Arizona, John and Doris Norton School of Family and Consumer Sciences, 650 N. Park Ave, P.O. Box 210078, Tucson, AZ 85721-0078, USA, helm@email.arizona.edu

Jörg Henseler Nijmegen School of Management, Radboud University Nijmegen, P.O. Box 9108, 6500 HK Nijmegen, The Netherlands, j.henseler@fm.ru.nl

Lutz Hildebrandt Institute of Marketing, Humboldt University Berlin, Unter den Linden 6, 10099 Berlin, Germany, hildebr@wiwi.hu-berlin.de

John Hulland Katz Business School, University of Pittsburgh, Pittsburgh, PA 15260, USA, jhulland@katz.pitt.edu

Nouna Kettaneh NNS Consulting, 42 Pine Hill Rd, Hollis, NH 03049, USA, nouna@nnsconsulting.com

Manfred Krafft University of Münster, Marketing Centrum Münster, Institute of Marketing, Am Stadtgraben 13-15, 48143 Münster, Germany, mkrafft@uni-muenster.de

Henning Kreis Marketing-Department, Freie Universität Berlin, School of Business and Economics, Otto-von-Simson-Str. 19, 14195 Berlin, Germany, henning.kreis@fu-berlin.de

Kai Kristensen School of Business, University of Aarhus, Haslegaardsvej 10, 8210 Aarhus V, Denmark, kak@asb.dk

Dapeng Li Agricultural Bank of China, Beijing 100036, China, zh.ldp@intl.abocn.com

Kerstin Liehr-Gobbers Hering Schuppener Consulting, Kreuzstraße 60, 40210 Düsseldorf, Germany, kliehr@heringschuppener.com

Alexandra Machás Polytechnic Institute of Lisbon, Escola Superior de Comunicação Social Campus de Benfica do IPL, 1549-014 Lisboa, Portugal, amachas@escs.ipl.pt

Harald Martens Norwegian Food Research Institute, Matforsk, 1430 Ås, Norway, harald.martens@matforsk.no
and
Faculty of Life Sciences, Department of Food Science, University of Copenhagen, Rolighedsvej 30, 1958 Frederiksberg C, Denmark
and
Norwegian University of Life Sciences, IKBM/CIGENE, P.O. Box 5003, 1432 Ås, Norway

Magni Martens Norwegian Food Research Institute, Matforsk, 1430 Ås, Norway, magni.martens@matforsk.no
and
Faculty of Life Sciences, Department of Food Science, University of Copenhagen, Rolighedsvej 30, 1958 Frederiksberg C, Denmark

Emmanuelle Mauger Biometrics and Epidemiology unit, C.E.R.I.E.S, 20 rue Victor Noir, 92521 Neuilly sur Seine, France, emmanuelle.mauger@ceries-lab.com

Meng Jie School of Statistics, Central University of Finance and Economics, Beijing 100081, China, mengjie517@126.com

Maria Manuela Neves Department of Mathematics, Instituto Superior de Agronomia, Technical University of Lisbon (TULisbon), Tapada da Ajuda, 1349-017 Lisboa, Portugal, manela@isa.utl.pt

Laure Nokels Materials Engineering Department, Technocentre Renault, 1, avenue du Golf, API TCR LAB 2 52, 78 288 Guyancourt Cedex, France, laure.nokels@renault.com

Coskun Ozkan Department of Industrial Engineering, Kocaeli University, Veziroglu Yerleskesi, 41040 Kocaeli, Turkey, coskun_ozkan@yahoo.com

Mário Lino Barata Raposo Departamento de Gestão e Economia, Universidade da Beira Interior, Estrada do Sineiro, 6200-209 Covilhã, Portugal, mraposo@ubi.pt

Robert K. Rayner Market Strategies International, 20255 Victor Parkway, Suite 400, Livonia, MI 48152, USA, bob_rayner@marketstrategies.com

Christian M. Ringle University of Hamburg, Institute for Industrial Management and Organizations, Von-Melle-Park 5, 20146 Hamburg, Germany, c.ringle@smartpls.de
and
University of Technology Sydney, Centre for Management and Organization Studies, P.O. Box 123, Broadway NSW 2007, Australia

José L. Roldán Management and Marketing Department, University of Seville, Ramón y Cajal, 1, 41018 Sevilla, Spain, jlroldan@us.es

David Martín Ruiz Escuela Universitaria de Estudios Empresariales, 41012 Sevilla, Spain, dmartin@us.es

Michael J. Ryan Ross School of Business, University of Michigan, P.O. Box 105, Bass Harbor, ME 04653, USA, mikeryan@umich.edu

Solve Sæbø Department of Chemistry, Biotechnology and Food Science (IKBM), Norwegian University of Life Sciences, P.O. Box 5003, 1432 Ås, Norway, solve.sabo@umb.no

Gilbert Saporta Conservatoire National des Arts et Métiers, Chaire de Statistique Appliquée, case 441, 292 rue Saint Martin, 75141 Paris, Cedex 03, France, gilbert.saporta@cnam.fr

Silvia Squillacciotti EDF R&D, Département ICAME, 1 avenue du Général de Gaulle, 92141 Clamart, France, silvia.fagnoni@edf.fr

Valentina Stan Groupe ESSCA Angers, 1 Rue Lakanal – BP 40348, 49003 Angers, Cedex 01, France, valentina_titu@yahoo.fr

Sandra Streukens Department of Marketing and Strategy, Universiteit Hasselt, Campus Diepenbeek, Agoralaan Gebouw DBE 3590 Diepenbeek, Belgium, sandra.streukens@uhasselt.be

Ekrem Tatoglu Faculty of Economics and Administrative Sciences, Chair of International Trade and Business, Bahcesehir University, Besiktas, Istanbul, Turkey, ekremt@bahcesehir.edu.tr

Dirk Temme Chair of Retailing and Service Management, Schumpeter School of Business and Economics, Bergische Universität Wuppertal, Gaußstr. 20, 42097 Wuppertal, Germany, Temme@wiwi.uni-wuppertal.de

Michel Tenenhaus Department of SIAD, HEC School of Management, 1 rue de la Libération, 78351 Jouy-en-Josas, France, tenenhaus@hec.fr

Laura Trinchera Dipartimento di Matematica e Statistica, Università degli Studi di Napoli "Federico II", Via Cintia, 26 – Complesso Monte S. Angelo, 80126 Napoli, Italy, ltrinche@unina.it

Ali Turkyilmaz Department of Industrial Engineering, Fatih University, Buyukcekmece, 34500 Istanbul, Turkey, aturkyilmaz@fatih.edu.tr

Manuel J. Vilares ISEGI – New University of Lisbon, Campus de Campolide, 1070-032 Lisbon, Portugal, mjv@isegi.unl.pt

Wang Huiwen School of Economics and Management, Beihang University, 37 Xueyuan Road, Haidian District, Beijing 100083, China, wanghw@vip.sina.com

Judith H. Washburn John H. Sykes College of Business, University of Tampa, 401 W. Kennedy Blvd., UT Box 48F, Tampa, FL 33606, USA, jwashburn@ut.edu

Sven Wende University of Hamburg, Institute for Industrial Management and Organizations, Von-Melle-Park 5, 20146 Hamburg, Germany, s.wende@smartpls.de

Martin Wetzels Department of Marketing and Marketing Research, Maastricht University, P.O. Box 616 6200 MD, The Netherlands, m.wetzels@mw.unimaas.nl

Alexander Will University of Hamburg, Institute for Industrial Management and Organizations, Von-Melle-Park 5, 20146 Hamburg, Germany, mail@alexwill.de

Bradley Wilson School of Media and Communication, RMIT University, 124 LaTrobe Street, GPO Box 2476V, Melbourne, Victoria 3000, Australia, brad.wilson@rmit.edu.au

Svante Wold NNS Consulting, 42 Pine Hill Rd, Hollis, NH 03049, USA, sbwold@gmail.com

Wu Zaibin School of Economics and Management, Beihang University, 37 Xueyuan Road, Haidian District, Beijing 100083, China, binship@126.com

Selim Zaim Department of Management, Fatih University, Buyukcekmece, Istanbul 34500, Turkey, szaim@fatih.edu.tr

Chapter 23
Reframing Customer Value in a Service-Based Paradigm: An Evaluation of a Formative Measure in a Multi-industry, Cross-cultural Context

David Martín Ruiz, Dwayne D. Gremler, Judith H. Washburn, and Gabriel Cepeda Carrión

Abstract Customer value has received much attention in the recent marketing literature, but relatively little research has specifically focused on inclusion of service components when defining and operationalizing customer value. The purpose of this study is to gain a deeper understanding of customer value by examining several service elements, namely service quality, service equity, and relational benefits, as well as perceived sacrifice, in customer assessments of value. A multiple industry, cross-cultural setting is used to substantiate our inclusion of service components and to examine whether customer value is best modeled using formative or reflective measures. Our results suggest conceptualizing customer value with service components can be supported empirically, the use of formative components of service value can be supported both theoretically and empirically and is superior to a reflective operationalization of the construct, and that our measure is a robust one that works well across multiple service contexts and cultures.

D.M. Ruiz
Escuela Universitaria de Estudios Empresariales, 41012 Sevilla, Spain
e-mail: dmartin@us.es

D.D. Gremler
Department of Marketing, College of Business Administration, Bowling Green State University, Bowling Green, OH 43403, USA
e-mail: gremler@cba.bgsu.edu

J.H. Washburn
John H. Sykes College of Business, University of Tampa, 401 W. Kennedy Blvd., UT Box 48F, Tampa, FL 33606, USA
e-mail: jwashburn@ut.edu

G.C. Carrión
Departamento de Administración de Empresas y Marketing, Universidad de Sevilla, Ramón y Cajal, 1, 41018 Sevilla, Spain
e-mail: gabi@us.es

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23.1 Introduction

Companies have recognized the strategic relevance of maintaining a solid base of loyal customers for survival, growth, and financial performance (Arnett et al. 2003). Scholars and successful firms have highlighted the delivery of customer value as a key strategy for achieving customer loyalty and reducing defection rates (Parasuraman and Grewal 2000). In some sense, customer value creation has emerged as a new paradigm that is a more comprehensive approach than the focus on service quality and customer satisfaction in creating and sustaining a competitive advantage (Stewart 2002; Vargo and Lusch 2004; Woodall 2003). Gale (1997) notes, "the customer value paradigm is newer, includes many of the elements of the customer satisfaction paradigm, plus additional features, and is more widely adopted." Similarly, Holbrook (1994) points out that "customer value is the fundamental basis for all marketing activity." Customer value research is viewed as being in its early stages and still underdeveloped to the extent that its definition remains confusing (Flint et al. 2002).

Customer value has been addressed in the marketing literature for some time, but only recently has consideration been given to understanding value in the context of service delivery. It is widely held that customer value leads to competitive advantage (Woodruff 1997) and that value is typically seen as a tradeoff between what customers receive versus what they give up (e.g., Monroe 1990; Zeithaml's 1988. Zeithaml's (1988) definition of product value, "consumers' overall assessment of the utility of a product based on perceptions of what is received and what is given," is representative of how value has been described in tangible goods contexts. However, relatively little research has specifically focused on the inclusion of service components when defining and operationalizing customer value. Indeed, researchers have traditionally implied that service value should be conceived as a special case of customer value that could lead to a competitive advantage for service providers (e.g., Parasuraman and Grewal 2000). More recently, however, Vargo and Lusch (2004) have proposed that the traditional goods-based marketing paradigm is evolving into a service-based paradigm. Following this paradigm shift, we suggest that the conceptualization of customer value should be reframed and extended to include service elements.

The conceptualization and measurement of customer value has been approached in different ways in the marketing literature. The unidimensional approach describes customer value in a global fashion and often operationalizes the construct directly through single measures of utility or value for money (e.g., Bolton and Drew 1991; Cronin et al. 1997; Hartline and Jones 1996) or multiple items (e.g., Teas and Agarwal 2000). However, in conceptualizing customer value in this way, researchers lose the conceptual richness of the construct. Alternatively, the multidimensional approach considers customer value as a highly complex concept with many components (e.g., de Ruyter et al. 1997; Sheth et al. 1991). Recent studies addressing customer value have suggested that the construct is too complex to be operationalized as unidimensional (Lam et al. 2004; Rust et al. 2000; Wang et al. 2004; Woodall 2003). A question that arises when taking a multidimensional approach is, whether customer value should be modeled as consisting of reflective or formative

indicators. Indeed, understanding the underlying essence of the construct, whether it is reflective (i.e., changes in the underlying construct cause changes in the indicators) or formative (i.e., indicators impact or cause the underlying construct), is an essential first step in modeling its structure (Jarvis et al. 2003). However, no prior study has examined whether customer value is better modeled with reflective or formative indicators.

The purpose of our study is to gain a deeper understanding of the customer value construct by looking at service components, to analyze how customer value is best measured, and to investigate this conceptualization across contexts and cultures. Specifically, we examine several service elements, namely service quality, service equity, and relational benefits (both social and confidence benefits) to see what role they play in customers' assessments of value. We conduct our study in a multiple-industry, multiple-culture setting to validate and generalize the proposed conceptualization of customer value. Our analysis also examines how customer value should be modeled by comparing a multidimensional, formative approach with a unidimensional, reflective approach.

23.2 Literature Review

23.2.1 Previous Conceptualizations of Customer Value

Early research on customer value is based in the pricing literature (Dodds and Monroe 1985), where perceived quality and sacrifice are the main components in determining the perceived value of a product, and extrinsic and intrinsic attributes are the determinants of quality and sacrifice. The widely held view is that "buyers' perceptions of value represent 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). Zeithaml's (1988) customer value model, one of the first to appear in the literature, has been empirically assessed in a variety of different product categories and with numerous attribute cues (e.g., Dodds et al. 1991; Grewal et al. 1998; Kerin et al. 1992; Naylor and Frank 2000; Sweeny and Soutar 2001; Sweeny et al. 1999; Teas and Agarwal 2000; Yang and Peterson 2004). These studies, which all conceptualize customer value in a unidimensional manner, have identified how different product attributes (e.g., country of origin, perceived risk, price, perceived quality) relate to customer perceived value and behavioral intentions.

Other scholars have conceptualized customer value as multidimensional. As we indicate in Table 23.1, many studies have adopted Zeithaml's (1988) approach (i.e. tradeoff model) by arguing that customer value consists of various benefits and sacrifices (e.g., Lapierre 2000; Lin et al. 2005). Other frameworks have also been proposed. For example, Woodruff (1997, p. 142) proposes that customer value "incorporates both desired and received value and emphasizes that value stems from customers' learned perceptions, preferences, and evaluations." This view depicts customer value as a hierarchy or means-end chain that begins with customers thinking about desired attributes and performance and builds to customers' goal-directed

Table 23.1 Recent multidimensional approaches used to examine customer value empirically

Author(s) / Context	Type of components	Components of customer value(items)	
de Ruyter et al. (1997) *Hotelservice*	Reflective	Benefits components emotional value (5), practical value (5), logical value (5)	Sacrifice components
Grewal et al. (1998) *Bicycles*	Reflective	perceived acquisition value (9)	perceived transaction value (3)
Lapierre (2000) *ICE Information, communication, entertainment), distribution, and finance services*	Reflective	alternative solutions (3), product quality (4), product customization (4), responsiveness (3), flexibility (4), reliability (5), technical competence (5), supplier's image (2), trust (5), solidarity (4)	price (5), time/effort/energy (5), conflict (3)
Mathwick et al. (2001) *Internet and catalog shopping*	Reflective	aesthetics (6), playfulness (5), service excellence (2), customer ROI (6)	
Sweeny and Soutar (2001) *Durables*	Reflective	emotional value (5), social value (4), performance/quality (6)	price (4)
Petrick (2002) *Fast food restaurant service*	Reflective	quality (4), emotional response (5), reputation (5)	monetary price (6), behavioral price (5)
Lam et al. (2004) *Courier services (business-to-business)*	Reflective	service quality (5)	price competitiveness (5)
Heinonen (2004) *Online bill payment service*	Reflective	technical value (1), functional value (1), temporal value (1), spatial value (1)[a]	technical value (1), functional value (1), temporal value (1), spatial value (1)
Wang et al. (2004) *Security firms*	Reflective	functional value (4), social value (3), emotional value (5)	perceived sacrifice (6)
Liu et al. (2005) *Financial staffing services*	Reflective	core service (3), support service (4)	economic value (3)
Pura (2005) *Directory services*	Reflective[b]	social value (3), emotional value (2), epistemic value (3), conditional value (2)	monetary value (3), convenience value (4)

(*continued*)

Table 23.1 (continued)

Author(s) / Context	Type of components	Components of customer value (items)	
Lin et al. (2005) *Web services*	Reflective and formative	web site design (5), fulfillment/reliability (3), security/privacy (3), customer service (3)	monetary sacrifice (2)

[a] The value components were each assumed to include an assessment of benefits and sacrifices.
[b] Six value components were investigated independently; the discussion does not suggest a formative conceptualization.

and purposeful behavior or their satisfaction with the received value; only a handful of studies have followed this approach, including those by Flint et al. (2002), Overby et al. (2004), and Woodruff and Gardial (1996). Sheth et al. (1991) propose five dimensions of customer value-epistemic, social, functional, emotional, and conditional dimensions of consumption; and their study serves as a framework for research conducted by de Ruyter et al. (1997) and Sweeny and Soutar (2001). Finally, Holbrook's (1994) multidimensional conceptualization suggests that value not only serves as the basis for a purchase decision, but is also the result of a particular consumption experience. He proposes a value typology based on three criteria – extrinsic/intrinsic value, reactive/passive value, and internal/external orientation – that has been tested by other researchers (e.g., Mathwick et al. 2001). However, of these alternative conceptualizations of value, the most commonly used framework remains Zeithaml's (1988) tradeoff model. We adopt her approach and conceptualize customer value in service contexts as consisting of various benefits and sacrifices.

23.2.2 Service Value

The call for more of a service focus in marketing research has recently been made in the literature. For example, Vargo and Lusch (2004, p. 2) argue that "the traditional dominant, goods-centered view of marketing not only may hinder a full appreciation for the role of services but also may partially block a complete understanding of marketing in general." The service view of marketing is customer-centric, suggesting that value is defined by and cocreated with the customer rather than embedded in the output (Sheth et al. 2000). Similarly, Grönroos (2000, pp. 24–25) states that "value for customers is created throughout the relationship by the customer, partly in interactions between the customer and the supplier or service provider. The focus is on the customers' value-creating processes where value emerges for customers and is perceived by them."

Following these arguments, and consistent with Vargo and Lusch's (2004) suggested service-dominant paradigm, we focus on better understanding customer value by examining service-related issues. Thus, in this study, we are interested in examining *the customer's perception of quality and benefits weighed against sacrifices in the context of service delivery*. From this point forward, we will use the term

service value as a synonym for customer value since our focus is on demonstrating the role various service components can have in shaping customers' perceptions of value. In the next section, we identify major components of service value – in terms of benefits and sacrifices – present in the service delivery process.

23.3 Toward a Conceptualization of Service Value

23.3.1 Service Value Components

In multidimensional approaches, value has been described as depending on a combination of monetary and non-monetary sacrifice, quality, performance, and disconfirmation experiences that represent a "richer, more comprehensive measure of customers' overall evaluation of a service than service quality" (Bolton and Drew 1991, p. 383). We contend that service value is primarily a cognitive consumer response since most of its components are assessed rationally. Our review of the literature suggests that customers consider several issues when making cognitive assessments of service value including service quality, service equity, relational benefits, and perceived sacrifice. The following paragraphs briefly discuss each of these components and argue why, based on our review, they should be considered salient components of service value.

Service Quality. The delivery of a high-value service offering is generally expected to be based on customer perceptions of quality (Berry 1995; Gremler and Brown 1996; Gronroos 1995). If a company's service delivery is built on a core physical product (e.g., a cellular phone in wireless communication services), product quality will be a component of perceived value for the customer (Rust and Oliver 1994). However, independent of where an offering stands on the goods-services continuum, perceived service quality is considered to be an essential pillar of value (Gronroos 1995). Service quality is difficult for competitors to imitate (Parasuraman and Grewal 2000), and it therefore represents a basis for differentiation (Berry 1995) and competitive advantage (Reichheld and Earl Sasser 1990) in building service value.

Service Equity. We suggest that service equity, which is also referred to as service image or service brand equity, should be considered as a second component of service value. Berry and Parasuraman (1991) contend that service image can be a source of customer value creation as company communications and customer experiences with the service define perceptions of the brand. A strong brand can create feelings of proximity, affection, and trust, and thus contribute significantly to customer perceptions of value. Cultivating brand equity in services is especially important given the intangible nature of the "invisible purchase" that a service represents for the customer (Berry 2000). As a consequence, service equity plays the role of a signaling indicator for the customer in a wide number of service settings (Singh and Sirdeshmukh 2000). Therefore, service equity is likely to be a salient dimension of perceived customer value in services, and a path to value creation for the customer.

Relational Benefits. The benefits derived from an ongoing relationship with the service provider represent another value component that should be considered in evaluations of the service delivery process. Grönroos (1997) argued that a relationship has a value of its own, acting as a softener in the case of discrete service failures, since the relational customer judges the relationship with the provider as a whole. Building on the early work of Barnes (1994), Bendapudi and Berry (1997), and Berry (1995), Gwinner et al. (1998) developed, and empirically supported, a typology of three relational benefits: confidence benefits, social benefits, and special treatment benefits. These are all benefits that exist above and beyond the core service being delivered (Hennig-Thurau 2002). Confidence benefits refer to customer feelings of trust and anxiety reduction. As customers engage in relational behavior and accumulate service encounter experiences, their level of uncertainty decreases as their knowledge of the service provider increases. Social benefits refer to the friendship, recognition, and fraternization that might arise between the customer and the service provider; they pertain to the emotional part of the relationship and are characterized by personal recognition of customers by employees, the customer's familiarity with employees, and the creation of friendships between customers and employees. Because service encounters are mostly social encounters (Czepiel 1990), Gwinner et al. (1998) found such benefits are often highly valued by customers. Finally, special treatment refers to functional benefits such as "... the customer's perception of preferential treatment, extra attention or personal recognition, and special service not available to other customers" (Gwinner et al. 1998, p. 105). A number of authors have found that these benefits significantly affect customer assessments of the service provider (cf. Bolton et al. 2000; Hennig-Thurau 2002; Price and Arnould 1999; Reynolds and Beatty 1999). Therefore, we contend that relational benefits are part of service value – at least for those customers who actively participate in an ongoing relationship – since these customers are able to evaluate such benefits as their experience with the service provider accumulates.

Perceived Sacrifice. Finally, customers may face a number of sacrifices, which involve both monetary and non-monetary costs, to obtain a service. The price paid for the service is the obvious monetary sacrifice, which is clearly a component of service value (Voss et al. 1998). Indeed, price or sacrifices have been empirically tested as either the antecedents or dimensions of value in both product and service settings (Cronin et al. 1997; Teas and Agarwal 2000). However, although customers do not always want low prices, they do consistently want the service to be worth the money expended. For some customers or in some specific situations, non-monetary sacrifices (e.g., convenience with respect to time, effort, and energy) might be even more important than monetary sacrifices when making choices. For example, time-constrained consumers patronize convenience stores and increasingly shop online to save time and effort. In this regard, time spent on making the buying decision and time spent waiting to access, receive, and complete the service are all relevant (Berry et al. 2002). In conclusion, the literature suggests perceived sacrifice – including both price and non-monetary sacrifices – should also be included in a conceptualization of service value.

23.3.2 Operationalizing Service Value

Because of the multidimensional conceptualization of service value, we propose that the construct is best operationalized as a formative index. The calculation of such an index requires the use of formative rather than reflective indicators (Arnett et al. 2003). When reflective indicators are used, the latent construct is assumed to cause the observed indicators; that is, with reflective indicators the observed variables "reflect" the changes in the latent construct (Bollen 1989). In comparison, when a latent construct is measured using formative indicators, the observed indicators are assumed to cause or "form" the latent construct. As such, omitting one or more formative indicators in effect omits part of the construct. The literature suggests that *each* of the service value components discussed earlier, should be essential to customer perceptions of value. Thus, our index is comprised of measures that influence the underlying latent construct rather than being influenced by it. Although the use of reflectively measured latent constructs dominates much of the research in marketing (Diamantopoulos and Winklhofer 2001), formative indexes have a long and rich tradition in social science research (e.g., Cronbach and Glesser 1953; Warner et al. 1949). Examples of formative indexes used in marketing research include the American Customer Satisfaction Index (Fornell et al. 1996), the Swedish Customer Satisfaction Barometer (Fornell 1992), the Deutsche Kundenbarometer (Meyer 1994), the job descriptive scale (Futrell 1979), and the retailer equity index (Arnett et al. 2003).

In this study, we conceptualize and measure service value as an index formed by the following components: service equity, service quality, relational benefits, and perceived sacrifice. It is appropriate to conceptualize service value as an index since changes in any of these dimensions would cause a change in the service value index. Furthermore, a change in one of the observed variables is not necessarily accompanied by changes in any of the other observed dimensions. For example, devoting more time to reach the dentist's office because of the longer distance to the office from the patient's home than other such offices (an indicator of perceived sacrifice) would not necessarily be accompanied by a change in service quality, service equity, or relational benefits displayed by the service provider. Therefore, the measurement of service value is modeled as having formative components that cause changes in the latent construct service value index (see Fig. 23.1).

23.4 Methodology

In view of the earlier discussion, the intent of the present study is threefold: (1) to identify components expected to be strong indicators of service value – namely, service quality, service equity, relational benefits, and perceived sacrifice; (2) to compare this multidimensional conceptualization of service value with a direct (reflective) conceptualization of the construct; and (3) to generalize this conceptualization by examining its robustness across differing services and across two cultures.

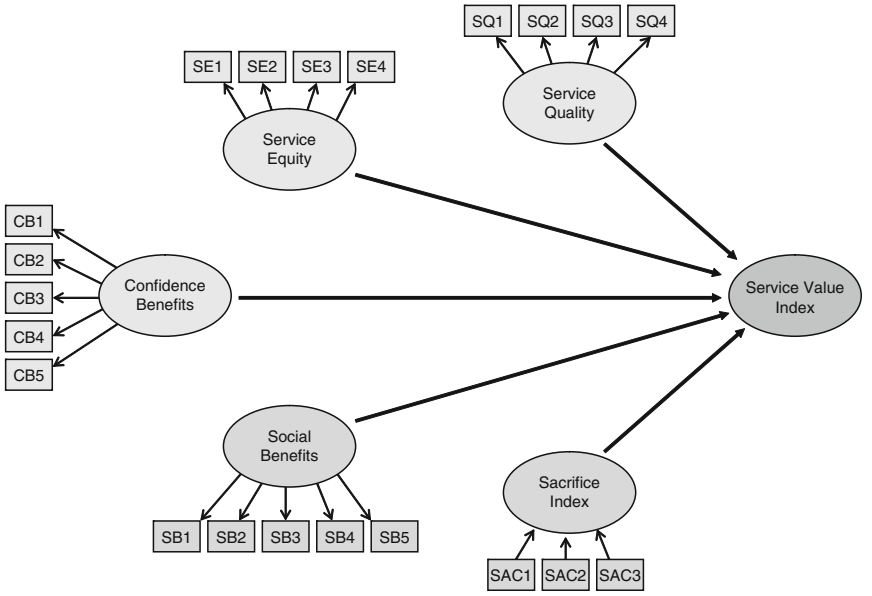

Fig. 23.1 Service value components

To examine the robustness of the conceptualization across various types of services, we grouped service organizations into three categories – following Bowen's (1990) classification of service industries – based on: the degree to which the offering is directed to the person or the person's property; whether the service has high, moderate, or low levels of customer contact; and the extent to which the service is highly customized, moderately customized, or standardized. To examine this conceptualization of service value across cultures, we conducted studies of both U.S. and Spanish consumers.

23.4.1 Measures and Data Collection

A self-report questionnaire that examines relationships with service providers was administered to 800 respondents (500 U.S. and 300 Spanish consumers). Respondents in both countries completed one of three questionnaire forms representing the three categories of service providers suggested by Bowen (1990): Group 1 – high contact, customized, personalized services (e.g., medical care, barber shop); Group 2 – moderate contact, semi-custom, non-personal services (e.g., dry cleaning, auto repair); and Group 3 – moderate contact/standardized services (e.g., health club, fast-food restaurant). Each respondent was asked to report on a service provider with whom he or she perceived having a strong, established relationship (cf. Gwinner et al. 1998).

The service value components under evaluation consist of a collection of 23 items that measure each of the components previously described: service quality (five items), service equity (five items), relational benefits – specifically confidence benefits (five items) and social benefits (five items),[1] and perceived sacrifice (three items). All items were taken directly or modified slightly from previously validated measures in the literature. Specifically, the service quality scale was adopted from Taylor and Baker (1994) and Gremler and Brown (1996); service equity items were taken from Yoo and Donthu (2001) and Ha (1996); relational benefits (specifically, confidence benefits and social benefits) items were taken from Gwinner et al. (1998); and the perceived sacrifice measures were from Sweeney and Soutar (2001) and Blackwell et al. (1999). The scales, presented in the Appendix, are seven-point Likert scales with anchors "strongly disagree" and "strongly agree."[2]

Both reflective and formative measures can be associated with a particular construct (Fornell 1982). As indicated earlier, of the service value components we considered, only perceived sacrifice is considered to be a formative construct (formed by price, time, and effort indicators). Our perceived sacrifice index combines both monetary and non-monetary sacrifices measures in a formative way since monetary sacrifices (e.g., price) and non-monetary sacrifices (e.g., time) are not necessarily positively correlated and, in fact, may sometimes be negatively correlated. The remaining components – service quality, service equity, confidence benefits, and social benefits – are first-order latent constructs measured by reflective indicators.

Finally, three other sets of measures were included in the study. To compare our index with a reflective operationalization of the construct, seven items were included as a direct reflective measure of value (Grewal et al. 1998; Sweeny and Soutar 2001). Two constructs were also included to provide an external validity assessment, including customer satisfaction – measured with six items based on Taylor and Baker (1994) and Oliver (1980), and repurchase intentions – with three items based on Zeithaml et al. (1996) and Taylor and Baker (1994).

23.4.2 Respondent Samples

U.S. Sample. Students served as data collectors for this sample, a technique that has been successfully used in a variety of services marketing studies (e.g., Bitner et al. 1990; Gwinner et al. 1998; Keaveney 1995). A total of 100 undergraduate

[1] We chose to focus on only two of the three relational benefits delineated by Gwinner et al. (1998), namely confidence benefits and social benefits. This decision was based on the necessity for parsimony and the desire to avoid weighting the service value construct too heavily on the dimension of relational benefits.

[2] Measures were pretested in both the U.S. (56 respondents) and Spain (66 respondents), following a double translation procedure (from English to Spanish and then back to English). As a consequence of the pretest results, two items were slightly reworded. In general, items and measurement scales in the pretest worked properly, displaying good reliability with Cronbach's alphas all above 0.80.

students from a public university in the midwestern U.S. participated as data collectors as part of a class assignment; a total of 500 questionnaires were distributed to U.S. customers. Each student distributed five questionnaires among their network of acquaintances from each of five age ranges (i.e., 19–29, 30–39, 40–49, 50–59, and over 60) and was instructed to collect data from at least two respondents of each gender. Three versions of the questionnaire, representing each of Bowen's (1990) three industry groups, were randomly distributed within each data collector's set of five. All questionnaires were collected within 14 days of distribution. Of the 500 questionnaires, six were not usable as they did not contain a complete set of responses; thus, 494 responses were usable (170, 158, and 166 per service Industry Groups 1, 2, and 3, respectively).

Spanish Sample. In Spain, two doctoral students trained in field research at a public university in Spain distributed 300 questionnaires to customers, with 254 of the responses deemed usable (55, 107, and 92 per Industry Groups 1, 2, and 3, respectively). As with the U.S. sample, data collectors followed age and gender quotas to prevent response bias. The industry group quota was not strictly followed, as it turned out to be difficult for the researchers to identify customers within the Spanish sample who perceived they had a strong, established relationship with a service provider from Industry Group 1 – only 55 usable responses were collected for this group.

In total, we obtained 748 valid questionnaires (225 from Industry Group 1, 265 from Industry Group 2, and 258 from Industry Group 3). The U.S. respondents averaged 45.0 years of age and 56.6% were female; Spanish respondents averaged 30.8 years of age and 57.0% were female. The average length of the customer/service provider relationship was 10.1 years in the U.S. sample and 5.1 years in the Spanish sample.

23.4.3 Data Analysis

Data analysis was performed using Partial Least Squares (PLS), a structural equation modeling technique that uses a principal-component-based estimation approach (Chin 1998). The use of PLS has certain advantages: (1) it does not suffer from indeterminacy problems like other causal modeling techniques using EQS or LISREL; (2) it is a nonparametric technique and, therefore, does not assume normality of the data; (3) it does not require as large a sample size as other causal modeling techniques; and (4) it can be used to estimate models that use both formative and reflective indicators. Research suggests the characteristics of PLS analysis make it an especially useful tool for index construction (Arnett et al. 2003; Diamantopoulos and Winklhofer 2001; Fornell et al. 1996).

For index development testing using PLS, Chin (1995,1998) recommends two procedures: the bootstrapping procedure and the Stone-Geisser test. In bootstrapping, a large number of random samples – Chin (1998) suggests 500 samples generated from the original dataset by sampling with replacement (Efron and Tibshirani 1993). Path coefficients are estimated with each random sample, and mean parameter estimates and standard errors are computed across the total number of samples.

In addition, the Stone-Geisser test of predictive relevance is used to assess model fit (Geisser 1975; Stone 1974); predictive relevance can be considered a type of model fit indicator as PLS does not provide assessment of causal relationships. The Stone-Geisser test, which does not require assumptions about the distribution of residuals, involves omitting or "blindfolding" one case at a time, re-estimating the model parameters based on the remaining cases, and predicting the omitted case values on the basis of the remaining parameters (Sellin 1995). The procedure results in the Q^2 test statistic, a measure representing how well observed values are reconstructed by the model and its parameter estimates (Chin 1998). If $Q^2 > 0$, the model has predictive relevance. Conversely, if $Q^2 \leq 0$, the model lacks predictive relevance.

In PLS, results are presented in two stages: the measurement model, which includes an assessment of the reliability and validity of the measures, and the structural model, which tests: (1) the amount of variance explained, (2) the significance of the relationships, and (3) the model's predictive relevance (Barclay et al. 1995). In this study, we assess the external validity of the index by evaluating the relationship between the service value index and measures of customer satisfaction and repurchase intentions.

23.5 Results

23.5.1 Measurement Model Analysis

The measurement model in PLS is assessed in terms of inter-construct correlations, item-to-construct correlations, Cronbach's alphas, composite reliabilities, and the average variance extracted for each construct. As indicated in Fig. 23.1, we model the service value index as a second-order formative construct with the five components independent from one another. Each of the scales for service equity (SE), service quality (SQ), confidence benefits (CB), and social benefits (SB) consist of reflective items, while the scale for perceived sacrifice (SAC) is formed by formative items. In the following paragraphs, we assess measure reliability, internal consistency, and discriminant validity for each of the service value components and the other measures included in the study. Table 23.2 displays factor loadings of the reflectively formed components of service value and the weights of the formative component (perceived sacrifice); Table 23.3 includes descriptive statistics and their correlations.

In order to assess *measure reliability* of each service value component, as well as the other measures in the study, we examined how each item relates to the latent constructs.[3] When assessing measures associated with a particular construct, the type

[3] In assessing formative indicators, it is important to keep in mind that they may be completely uncorrelated and, therefore, internal consistency across components is not appropriate. According to Diamantopoulos and Winklhofer (2001), the correlation among formative indicators is not

Table 23.2 Assessment of reflective and formative constructs

(A) Reflective constructs: factor loadings

	Service Equity	Service Quality	Confidence (Relational) Benefits	Social (Relational) Benefits	Customer Value (reflective measure)	Customer Satisfaction	Repurchase Intentions
SE1	**0.83**	0.23	0.11	0.22	0.30	0.20	0.03
SE2	**0.91**	0.23	0.20	0.18	0.26	0.22	0.03
SE3	**0.92**	0.26	0.24	0.14	0.26	0.23	0.03
SE4	**0.82**	0.15	0.20	0.12	0.18	0.19	0.01
SQ1	0.21	**0.88**	0.15	0.31	0.27	0.31	0.03
SQ2	0.22	**0.88**	0.13	0.13	0.31	0.29	0.05
SQ3	0.27	**0.90**	0.14	0.21	0.28	0.27	0.04
SQ4	0.26	**0.86**	0.13	0.15	0.25	0.28	0.03
CB1	0.11	0.11	**0.88**	0.16	0.09	0.06	0.02
CB2	0.13	0.03	**0.88**	0.18	0.12	0.14	0.00
CB3	0.19	0.10	**0.92**	0.18	0.17	0.11	0.00
CB4	0.12	0.09	**0.89**	0.29	0.15	0.14	0.00
CB5	0.10	0.12	**0.86**	0.08	0.12	0.17	0.01
SB1	0.22	0.21	0.52	**0.89**	0.21	0.15	0.06
SB2	0.23	0.21	0.43	**0.90**	0.18	0.28	0.03
SB3	0.26	0.21	0.32	**0.89**	0.20	0.19	0.01
SB4	0.08	0.16	0.37	**0.84**	0.21	0.34	0.02
SB5	0.22	0.25	0.34	**0.89**	0.28	0.31	0.03
CV1	0.31	0.27	0.19	0.21	**0.79**	0.42	0.07
CV2	0.11	0.10	0.15	0.04	**0.82**	0.19	0.02
CV3	0.23	0.26	0.14	0.19	**0.88**	0.23	0.04
CV4	0.13	0.13	0.13	0.09	**0.86**	0.19	0.02
CV5	0.24	0.20	0.18	0.19	**0.88**	0.28	0.03
CV6	0.27	0.18	0.10	0.26	**0.78**	0.24	0.05
CV7	0.22	0.30	0.14	0.16	**0.87**	0.22	0.02
SAT1	0.21	0.23	0.24	0.22	0.32	**0.90**	0.08
SAT2	0.21	0.32	0.20	0.24	0.39	**0.95**	0.05
SAT3	0.23	0.30	0.21	0.23	0.37	**0.92**	0.03
SAT4	0.32	0.30	0.19	0.25	0.36	**0.93**	0.05
SAT5	0.26	0.34	0.15	0.23	0.39	**0.96**	0.06
SAT6	0.31	0.32	0.19	0.22	0.38	**0.95**	0.07
RP1	0.02	0.04	0.01	0.04	0.04	0.06	**0.92**
RP2	0.02	0.02	0.00	−0.01	0.02	0.02	**0.90**
RP3	0.03	0.03	0.02	0.04	0.05	0.04	**0.84**

(B) Formative constructs: component weights

	Component Weights
SAC1	**0.51**
SAC2	**0.57**
SAC3	**0.12**

Table 23.3 Descriptive statistics and correlation matrix

	Mean[a]	SD	CA	CR	AVE	1	2	3	4	5	6	7	8	9
1. Service equity	5.72	1.06	0.89	0.92	0.76	**(0.87)**								
2. Service quality	5.26	1.00	0.90	0.93	0.77	0.62	**(0.88)**							
3. Social benefits	4.30	0.99	0.93	0.95	0.79	0.42	0.41	**(0.89)**						
4. Confidence benefits	5.34	1.00	0.93	0.94	0.76	0.58	0.66	0.69	**(0.87)**					
5. Sacrifice index[b]	3.22	1.12	n.a.	n.a.	n.a.	−0.07[c]	−0.21	−0.16	−0.19	n.a.				
6. Service value index[b]	4.77	1.02	n.a.	n.a.	n.a.	0.76	0.73	0.58	0.85	−0.31	n.a.			
7. Customer value[d]	5.31	1.42	0.93	0.94	0.69	0.62	0.70	0.43	0.63	−0.37	0.78	**(0.83)**		
8. Customer satisfaction	5.72	1.32	0.96	0.97	0.83	0.65	0.80	0.46	0.73	−0.26	0.86	0.80	**(0.91)**	
9. Repurchase intentions	4.94	1.46	0.87	0.91	0.72	0.62	0.64	0.40	0.61	−0.28	0.70	0.65	0.76	**(0.85)**

Notes:
[a] Mean = the average score for all of the items included in this measure; S.D. = Standard Deviation; CA = Cronbach's Alpha; CR = Composite Reliability; AVE = Average Variance Extracted; n.a. = not applicable. The bold numbers on the diagonal are the square root of the Average Variance Extracted. Off-diagonal elements are correlations among constructs
[b] Formative construct
[c] For this correlation, $p < 0.05$; for all other correlations in the table, $p < 0.01$
[d] This construct is formulated using seven reflective indicators

of measure dictates whether one looks at the weights when examining formative measures, or factor loadings when examining reflective measures (Mathwick et al. 2001). Table 23.2 shows construct-to-item loadings and cross-loadings of the reflective service value measures. All of the loadings exceed 0.82 for these items and load more highly on their own construct than on others. The loadings for the direct reflective measures of customer value, as well as for customer satisfaction and repurchase intentions, are also as expected (i.e., all above 0.70). These results provide strong support for the reliability of the reflective measures.

explained by the measurement model but is exogenously determined. Therefore, internal consistency across components is of minimal importance since two components that might even be negatively related could both serve as meaningful indicators. As a result, "conventional procedures used to assess the validity and reliability of scales composed of reflective indicators are not appropriate for indexes with formative indicators" (Diamantopoulos and Winklhofer 2001, p. 271). In contrast to formative indicators, reflective indicators are essentially interchangeable because they mirror or reflect the latent construct. Omitting a single reflective measure will not compromise the essential nature of the construct. Reflective indicators should be internally consistent and changes in the latent construct cause changes in the reflective variable(s). Thus, we examine the internal consistency within each reflective service value component and the other reflective constructs in the study, but not across the service value components.

In the case of formative measures, instead of examining the factor loadings, one examines factor weights – which represent a canonical correlation analysis and provide information about how each indicator contributes to the respective construct (Mathwick et al. 2001). As indicated in Table 23.2, all three formative items for perceived sacrifice significantly contribute to the measure ($p < 0.01$), with time (weight = 0.57) and money (weight = 0.51) being the major contributors to the sacrifice index, followed distantly by effort (weight = 0.12). A concern with formative measures is the potential multicollinearity among the items (Mathwick et al. 2001), which could produce unstable estimates. Thus, we performed a collinearity test; the results showed minimal collinearity with the variance inflation factor (VIF) of all items ranging between 1.30 and 1.80, far below the common cut-off threshold of 5 to 10. These results suggest that the three items are salient contributors to the perceived sacrifice index.

Internal consistency is assessed using two measures: Cronbach's alpha and composite reliability. Nunnally (1978) suggests 0.70 as a benchmark for a "modest" reliability applicable in early stages of research and 0.80 as a more "strict" reliability applicable in basic research. As shown in Table 23.3, both the alpha and composite reliability of each set of reflective measures for each component of the service value index, as well as each of the other measures included in the study, exceeds 0.89. Additionally, the factor loadings for each of the components of the service value index are all greater than 0.82, and for all of the other constructs examined, the loadings are greater than 0.78, suggesting all of the items are good indicators of their respective components.

Discriminant validity was assessed in two ways. First, we examined the Average Variance Extracted (AVE) – which indicates the amount of variance that is captured by the construct in relation to the variance due to measurement error. Values for AVE should exceed 0.50 (BAR95). As the statistics presented in Table 23.3 indicate, all AVE values are greater than 0.69. Second, we compared the square root of the AVE (i.e. the diagonal in Table 23.3) with the correlations among constructs (i.e. the off-diagonal elements in Table 23.3). In Table 23.3, the square root of AVE for all of the reflective constructs exceeds 0.83 and each is greater than the correlation between the constructs; in order to demonstrate discriminant validity, diagonal elements should be greater than off-diagonal elements (Fornell and Larcker 1981). These statistics suggest that each construct relates more strongly to its own measures than to measures of other constructs; that is, all constructs share more variance with their own measures than with the others. These two sets of findings provide strong evidence of discriminant validity among the constructs.

Collectively, these results provide support for the overall quality of our measures. In particular, the statistics suggest our component measures are reliable, are internally consistent, and have discriminant validity.

Finally, we assessed the service value index as a formative *second-order factor*. The previous discussion provides support for the quality of the measures of the various service value components. Also of interest are the weights of the five service value components. The statistics for all but one of the components were as expected. As indicated in Table 23.4, the weights for service quality (weight = 0.46), service

Table 23.4 Service value statistics across contexts

	Entire sample	Industry group 1	Industry group 2	Industry group 3	U.S. sample	Spanish sample
Service value index weights[a]						
Service quality (SQ) component	0.46	0.46	0.46	0.42	0.44	0.55
Service equity (SE) component	0.34	0.28	0.39	0.28	0.31	0.36
Confidence benefits (CB) component	0.23	0.33	0.16	0.22	0.30	0.13
Social benefits (SB) component	0.00	0.05	−0.04	0.00	−0.03	0.03
Sacrifice (SAC) component	−0.30	−0.25	−0.30	−0.43	−0.29	−0.37
MIMIC model:						
Structural path						
SV index → CV (reflective measure)	0.79	0.73	0.83	0.77	0.80	0.71
Standard error[b]	0.01	0.03	0.02	0.02	0.02	0.03
R2	0.63	0.54	0.69	0.60	0.64	0.51
Q2	0.56	0.56	0.60	0.52	0.60	0.55
External validity model:						
Structural path						
SV index → SAT	0.88	0.86	0.88	0.81	0.88	0.77
Standard error[b]	0.01	0.02	0.02	0.02	0.01	0.02
R2	0.78	0.74	0.78	0.66	0.78	0.60
Q2	0.74	0.75	0.73	0.73	0.80	0.63
Structural path						
SV index → RP	0.72	0.68	0.69	0.68	0.69	0.58
Standard error	0.02	0.05	0.04	0.04	0.04	0.05
R2	0.51	0.46	0.48	0.46	0.48	0.34
Q2	0.53	0.42	0.56	0.47	0.53	0.41

[a] All weights are standardized
[b] Standard error values are estimated using a bootstrapping procedure
Industry Group 1: (High Contact/Customized/Personalized Services) Nice Restaurants, Beauty Salon, Medical Care Services, Barber Shop, Dental Care, Legal Services, Investment Brokerage Firms, Financial Consulting/Accounting Services
Industry Group 2: (Moderate Contact/Semi-customized/Non-personal Services) Photo Finishing Services, Shoe Repair, Laundry and Dry Cleaning Services, Computer Repair, Auto Repair, Veterinarian Care, Banking Services, Cellular/Mobile Phone Service
Industry Group 3: (Moderate Contact/Standardized Services) Health Club, Airlines, Movie Theater, Grocery Store, Express Mail Services, Copying/Printing Services, Retail Clothing Store, Fast Food Restaurant

equity (weight = 0.34), confidence benefits (weight = 0.23), and sacrifice (weight = −0.30) suggest they are major determinants of service value. Surprisingly, the weight for social benefits was essentially zero (weight = 0.004). We performed a collinearity test on the index; the results showed minimal collinearity among the five components, with the variance inflation factor (VIF) of all items ranging between 1.06 and 3.00, far below the common cut-off threshold of 5 to 10. Thus, the five service value components are independent from one another. Overall, these results suggest four of the five components are salient contributors to the service value index. In the discussion section, we discuss this finding further.

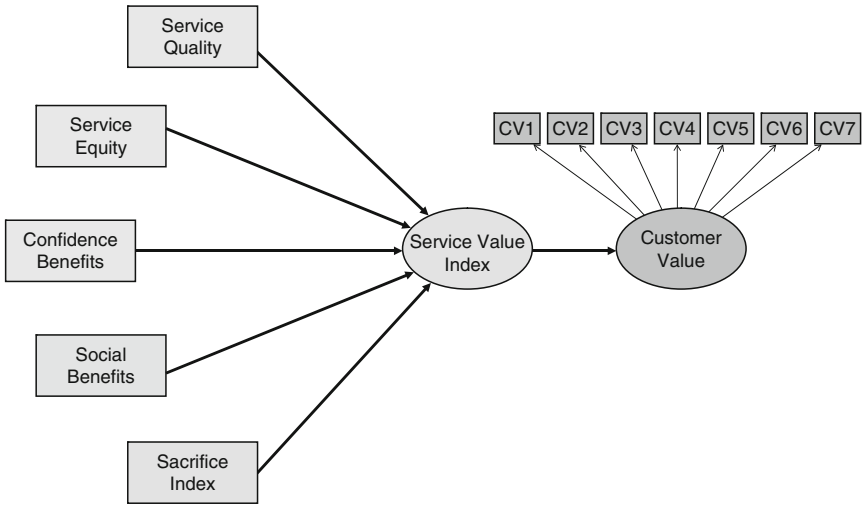

Fig. 23.2 MIMIC model for PLS analysis of the service value index

23.5.2 Structural Model Assessment

A model estimated through PLS algorithms can only be analyzed if it is placed within a larger model that incorporates consequences of the latent variable in question. In our case, we examine several models: (1) a multiple indicators and multiple causes (MIMIC) model, where the dependent variable is a direct measure of customer value; and (2) two models with other theoretically related dependent variables included for external validity assessment.

A MIMIC model approach (Jöreskog and Goldberger 1975) can be used to assess the appropriateness of a set of formative indicators (Diamantopoulos and Winklhofer 2001). To test the validity of our five-component service value index, our MIMIC model (see Fig. 23.2) includes a reflective seven-item measure of customer value as an external criterion variable that is explained by the service value index. (See the Appendix for a list of the items included in this measure.) According to the MIMIC model statistics, our index explains a relatively large amount of variance in this seven-item measure of value; the model's R^2 value, the main criteria by which model fit is assessed in PLS analysis (Chin 1998), is 0.63. In addition, the Stone-Geisser statistic (Q^2) is 0.56; values greater than zero indicate that the model has predictive relevance. Furthermore, the path from the service value index to the seven-item customer value measure is positive and significant ($\beta = 0.79$, $p < 0.001$) and the standard error is low (SE = 0.01), indicating the service value index adequately captures the construct being measured by the reflective indicators. In sum, the data provide support for the proposed formative model of service value.

To provide evidence of *external validity*, the service value index should be significantly correlated to other constructs that theory suggests should be associated

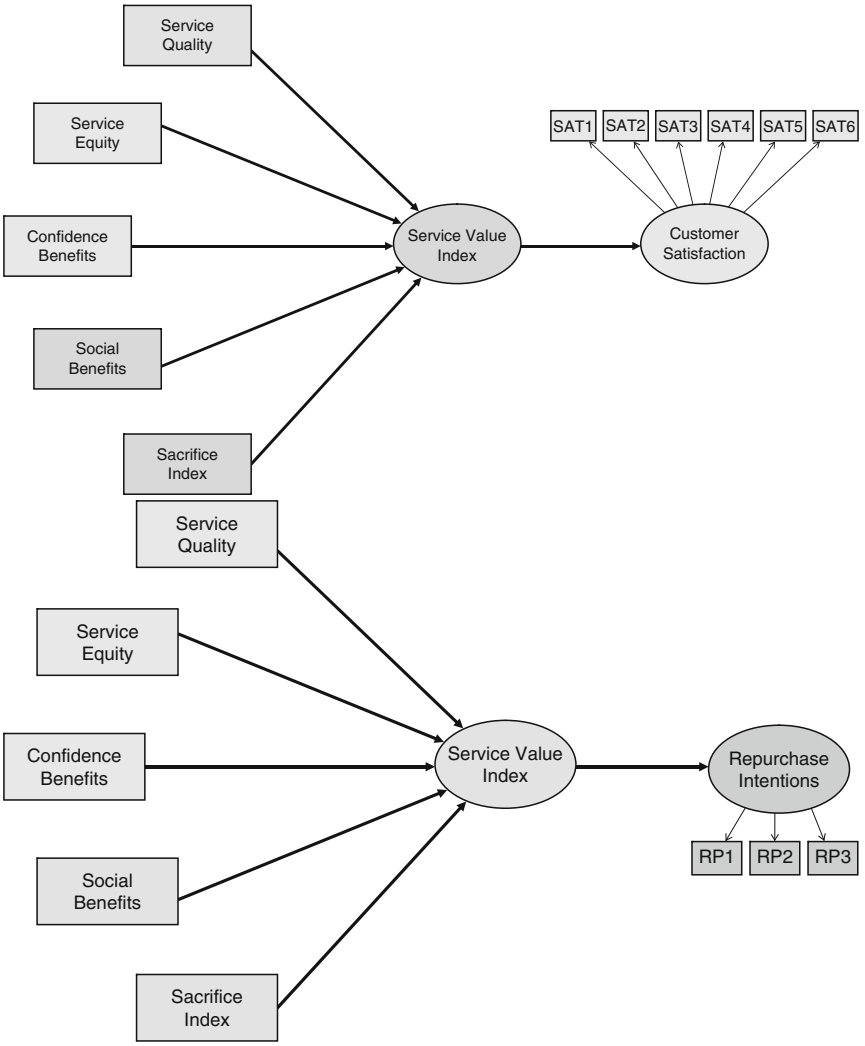

Fig. 23.3 External validation models for PLS analysis of the service value index

with the construct (Bagozzi 1994). As indicated earlier and depicted in Fig. 23.3, we included two constructs in the study – namely, customer satisfaction and repurchase intentions – that theory suggests should be related to service value. Consistent with the services literature (e.g., Cronin et al. 2000), we estimated two models in which the service value index serves as an antecedent for these two constructs (see Fig. 23.3). The resulting statistics suggest each model fits the data well: for customer satisfaction, $R^2 = 0.74$, and for repurchase intentions, $R^2 = 0.51$. We also estimated these models using the reflective seven-item measure of value. The service value index outperforms the reflective measure as the R^2 values are smaller when value is modeled using reflective indicators: for customer satisfaction, $R^2 = 0.64$,

Table 23.5 Comparison of formative and reflective measures of customer value

	Service value index (Formative measure)	Customer value (Reflective measure)
Customer satisfaction		
Structural path		
Service value → Customer satisfaction (SAT)	0.86	0.80
Standard error[a]	0.01	0.01
R^2	0.74	0.64
Repurchase intentions		
Structural path		
Service value → Repurchase intentions (RP)	0.72	0.65
Standard error[a]	0.02	0.02
R^2	0.51	0.43

[a] Standard error values are estimated using a bootstrapping procedure

and for repurchase intentions, $R^2 = 0.43$. We conducted an f^2 analysis to compare the R^2 values in the two external validity models for both value measures. The f^2 statistic for a comparison of the customer satisfaction R^2 values is 0.64 and for a comparison of the repurchase intentions R^2 values it is 0.43; both f^2 statistics are greater than 0.35, the level that suggests a substantial difference between each pair of R^2 values (Chin 1998), indicating that the service value index is a substantially better predictor of these two constructs than the reflective measure.

We also examined the path coefficients between the service value index and the two constructs, using the bootstrapping test mentioned earlier with 500 subsamples (Chin 1998). As reported in Table 23.5, the coefficients are significant ($p < 0.001$; SE = 0.01) in each relationship: for customer satisfaction $\gamma = 0.86$, and for repurchase intentions $\gamma = 0.71$. These coefficients are greater than those that result from using a model with a reflective measure of value: for customer satisfaction $\gamma = 0.80$, and for repurchase intentions, $\gamma = 0.65$. As we did with the external validity models mentioned in the previous paragraph, we conducted an f^2 analysis to compare the path coefficients in the external validity model for both value measures (formative and reflective). The f^2 statistic for a comparison of the customer satisfaction coefficients is 0.64 and for the repurchase intentions is 0.43; and, as before, both values are greater than 0.35, the level that suggests a substantial difference between the path coefficients (Chin 1998), indicating that the service value index is a substantially better predictor of these two constructs.

Overall, statistics from the MIMIC model and the external validation models provide evidence in support of the external validity of the service value index. The external validity results also suggest the superiority of the formative service value measure compared to the reflective measure of the construct, as the R^2 values and path coefficients are all significantly greater when using the (formative) service value index than when using the reflective seven-item value measure.

23.5.3 Salience of Service Value Components across Contexts

To assess the salience of the various service value components across service contexts, we split the data into three sets corresponding to the three industry groups described earlier. As displayed in Table 23.4, the relative importance of the service value components is very consistent and varies minimally across industry contexts. In particular, the salient role of service quality is not dependent on the context, as the weight of this component in the index is similar across industry groups. That is, across the three industry groups, service quality consistently emerges as the most salient component of service value, with weights ranging from 0.42 to 0.46.

Service equity, perceived sacrifice, and confidence benefits also have relatively consistent weights across the three industry groups. In particular, the range of the service equity weights, although slightly larger than the range of weights for service quality, is relatively small; the component weight for semi-customized non-personal services (Industry Group 2) (weight = 0.39) is a little more than it is for both high contact (Industry Group 1) (weight = 0.28) or standardized services (Industry Group 30) (weight = 0.28). For perceived sacrifice, the range of the weights is a little greater. As the level of personalization and interpersonal contact decreases (i.e., going from Industry Group 1 to Industry Group 3), the relative importance of perceived sacrifice increases (with weights of −0.25, −0.30, and −0.43 for Industry Groups 1, 2, and 3, respectively). Confidence benefits also make a similar contribution to the service value index across all three industry groups (with weights ranging from 0.16 to 0.33).

As mentioned earlier, the weight for social benefits is essentially zero when the entire data set is analyzed. This is also true when looking at the contribution of social benefits to the service value index across contexts. In general, the weights of the five service value components (displayed in Table 23.4) suggest the contributions of each are relatively consistent – both in terms of the magnitude and the relative order – across service contexts.

Although the importance of the various components is fairly consistent across the three industry groups, there is some variation. For example, in standardized services (Industry Group 3), the weight of perceived sacrifice is the largest component of the service value index (weight = −0.43), matching the contribution of service quality (weight = 0.42); however, for moderate contact, semi-customized services (Industry Group 2), the relative weight of perceived sacrifice decreases (weight = −0.30), reaching its lowest level (weight = −0.25) for personalized high-contact services (Industry Group 1). However, the pattern of weights is, in general, consistent across contexts.

23.5.4 Salience of Service Value Components Across Cultures

In addition to investigating the service value components across contexts, we also examined the components across cultures by comparing the U.S. sample with the Spanish sample. In general, as was the case in looking across the industry groups,

the importance of the service value components is also relatively consistent across the two cultures. That is, the weights displayed in Table 23.4 suggest the largest contribution to the service value index is made by service quality, followed by service equity, perceived sacrifice, and confidence benefits. The magnitude of the weights are fairly similar for each component across cultures, except that confidence benefits appear to be more important in the U.S. (weight = 0.30) than in Spain (weight = 0.13).

23.6 Discussion

Our review of the literature suggests three salient issues arise when considering customers' perceptions of value: whether customer value should be conceptualized as unidimensional or multidimensional, whether the components of customer value should be modeled as reflective or formative, and whether service components should be included in conceptualizations of the construct. This study contributes to the literature by addressing these issues. In particular, our study (1) identifies service components expected to be strong indicators of customer value – namely, service quality, service equity, relational benefits (including confidence benefits and social benefits), and perceived sacrifice; (2) demonstrates the superiority of this multidimensional conceptualization of customer value to a direct (reflective) conceptualization of the construct; and (3) provides evidence in support of the robustness of this conceptualization by assessing it across differing service contexts and cultures.

23.6.1 Unidimensional Versus Multidimensional Conceptualization of Customer Value

The conceptualization of customer value has been approached in different ways in the marketing literature. The *unidimensional* approach describes customer value in a global fashion; using this approach, the construct is often measured directly by reflective items attempting to capture the concept of utility or value for money. However, this conceptualization of customer value prevents researchers from capturing the conceptual richness of the construct. Alternatively, the *multidimensional* approach considers customer value as a highly complex concept with many components. We contend, as do many recent studies, that the customer value construct is too complex to be conceptualized as unidimensional and should be considered multidimensional.

In support of our claim, we compare a unidimensional conceptualization of the construct with a multidimensional approach. Following Arnett et al. (2003), we construct a MIMIC model, which includes a reflective seven-item measure of customer value as an external criterion variable, to test the validity of our multidimensional service value construct. The resulting statistics indicate that the service value

index adequately captures the construct being measured by the reflective indicators, providing support for our multidimensional conceptualization of service value.

23.6.2 Usage of Reflective or Formative Components in Operationalizing Customer Value

A question that arises when taking a multidimensional approach is whether customer value should be modeled as consisting of reflective or formative components. A reflective approach would suggest that each dimension is (or should be) highly correlated with the others because *changes in the underlying construct cause changes in the dimensions*; a formative approach suggests the various dimensions may be independent of each other as *they cause the underlying construct*. The fundamental essence of any construct, whether it is reflective or formative, is crucial in modeling the construct's structure (Jarvis et al. 2003). However, we are not aware of any prior study that has examined customer value using a formative approach or has addressed whether the construct is better modeled with reflective or formative components.

To address this gap in the literature, we proposed a formative index of customer value to capture a more complete portrayal of the construct and compared this to an operationalization of the construct using reflective measures. We found our formative index significantly outperforms a reflective measure. In particular, the variance explained (measured via R^2) for customer satisfaction and repurchase intentions is significantly greater when using our index and the magnitude of the path coefficients between the two customer value measures and each of these two constructs is significantly greater with our index. These results suggest that formative index of customer value is a significantly better predictor of these two constructs than a reflective measure of the construct.

23.6.3 Inclusion of Service Components in Conceptualizing Customer Value

Customer value has received much attention in recent marketing literature, but relatively little attention has been given to the inclusion of service components when defining and operationalizing customer value. That is, most conceptualizations of customer value tend to have a product focus, a likely consequence of the traditional goods-based marketing paradigm that has dominated thought for the past few decades (Vargo and Lusch 2004). Since service components are generally not considered in conceptualizations of customer value, we believe the discipline's conceptualization of the construct is incomplete. Following Vargo and Lusch's call to shift to a more service-based paradigm, we have argued in this study that the conceptualization of customer value should be reframed to include service elements, including service quality, service equity, and relational benefits.

Our conceptualization of customer value was tested across a variety of service settings and in two countries (the U.S. and Spain); the results are fairly uniform across contexts and cultures. First, service quality consistently emerges as the major determinant of service value across both cultures and three industry groups, supporting previous literature suggesting quality is an essential pillar of the value creation process. That is, the evidence confirmed the essential role that service quality plays in the value perception of service as a major source of competitive advantage for companies. Second, we found that service equity is also a significant component of service value, especially for moderate-contact, semi-customized services. While the literature supports the importance of branding in services, to our knowledge, this is the first empirical exploration of the relevance of service equity in the global context of value. Importantly, this research shows that service quality and service equity are the consistently significant drivers of service value.

Perceived sacrifice, the third major component of service value we examined, generally has a relative weight close to that of service equity. However, the influence of perceived sacrifice appears to be context-dependent; the importance of sacrifice (weight $= -0.43$) increases when the service is standardized and nonpersonal in nature (Industry Group 3), suggesting customers are more sacrifice-conscious when they have fewer interactions with the provider. On the other hand, the relevance of sacrifice for service value decreases when it comes to high-contact, customized services (weight $= -0.25$). Perceived sacrifice appears to be less important when the customer has more direct contact with the service provider.

One type of relational benefit we included in our study, confidence benefits, appears to be relatively more important when the service is more personal in nature and with a higher level of customer-employee contact (Industry Group 1). Customers apparently value feelings of confidence in, and reduced anxiety with, a service provider when the service is more complex. This finding is consistent with the key role that trust plays in high-contact, customized services (such as dental services, legal services, and financial consulting).

One unanticipated finding is the negligible contribution social benefits appear to make to the service value index. Although the respondents were asked to evaluate a service provider with whom they had a strong relationship, they apparently did not identify service providers where they have a strong interpersonal relationship with their employees. That is, most respondents did not report having a particularly strong social connection with the service provider – the average social benefits score of 4.30 is just above the midpoint on the 1 to 7 scale. However, the fact that social benefits had no impact even for respondents from Industry Group 1 was very surprising since these customers used services that tend to have significantly more interactions with employees than the other two industry groups. In standardized services (Industry Group 3), one could perhaps argue that customers are not interested in developing close interpersonal relationships, which would explain why social benefits are irrelevant in this context. Clearly, the insignificant contribution of social benefits to customer value needs further investigation.

23.7 Implications

23.7.1 Managerial Implications

This study highlights issues that are directly relevant to managers responsible for creating or measuring customer value. Consistent with the emergent thinking on competing through service, our study supports the notion that competitive advantage is achieved by focusing on the service elements of customer value. In an environment that is increasingly competitive on a global scale, management efforts directed toward a better understanding of and measuring customer value, and, in particular, service value, will improve an organization's competitive position. Results from this study can influence managerial decisions in at least three areas: 1) customer value measurement, 2) customer value perceptions for global companies, and 3) company performance on elements of customer value.

Measuring Customer Value. Managers should reexamine current customer value measures to ensure these tools capture the richness of this multidimensional construct. Our findings clearly suggest that a simple, direct measure is inadequate for capturing the complexities of customer value. Our development of a service value index implies that, for the measure to be comprehensive, it should contain several service components; omitting these aspects of customer value prevents a complete understanding of the construct. In addition, we confirm that service value is strongly correlated with such critical outcomes as customer satisfaction and repurchase intention.

Customer Value for Global Companies. Global managers can similarly measure customer value across cultures with confidence. Our study indicates that the value model is robust across the U.S. and Spanish cultures. While complete generalization requires further validation, managers can begin to develop improved programs and measurement instruments with the expectation that customers in different markets may define value in similar ways.

Performance on Customer Value Elements. Our study suggests customer perceptions of value are influenced by service elements; therefore, service should be an integral part of any customer value strategy. Our model clearly demonstrates that service quality is consistently the strongest driver of service value, across cultures and across industries. This finding suggests service quality is the key to improving customer value perceptions and should be emphasized in all customer encounters.

Managers should also take note of the importance of service equity and begin to incorporate this component in measures and programs. Service equity elements are particularly relevant for such service providers as dry cleaners or auto repair shops (i.e., Industry Group 2 – moderate contact, non-personal services) where service equity rivals service quality as the most important component of customer value. The image the company portrays through its communications and customer interactions plays heavily into customers' value perceptions. The auto repair shop that projects an image of integrity, efficiency, and professionalism at each customer contact point will increase its customer value proposition.

Managers must also recognize that the level of importance customers attach to what they perceive to be sacrifices in purchasing and/or using a service is likely to vary across industries. Our study shows that customers are more "sacrifice-conscious" when consuming impersonal, standardized services and become less so as the service becomes more personalized. To increase customers' value perceptions, managers – especially those in standardized, moderate-contact industries – should attempt to reduce customers' perceptions of sacrifice. Movie theater managers, for example, might allow customers to pre-purchase tickets online, thereby reducing the sacrifice of standing in a long ticket line.

Our findings on the importance of relational benefits were mixed. Confidence benefits (e.g., trust, anxiety reduction) are consistently important but the level of importance varies across industries and cultures. Confidence benefits are more important when the service is highly personal and involves high contact and, interestingly, in the U.S. in comparison to Spain. Therefore, confidence benefits should be emphasized for service providers such as doctors, lawyers, and financial consultants and should be considered especially vital in the U.S. Visual cues that inspire trust (e.g., sedate dcor in a lawyer's office) may be more influential in improving perceived customer value for the lawyer than for the dry cleaner. On the other hand, our study suggests social benefits may not contribute to customers' value perceptions in the manner previously suggested by the literature. Rather, our findings suggest companies might consider carefully examining the effectiveness of programs designed to increase customers' social benefits (e.g., building friendships or familiarity with employees).

23.7.2 Research Implications

At least three research implications arise from our study. First, researchers should avoid unidimensional conceptualizations of customer value whenever possible. Scholars who attempt to capture the essence of customer value by defining it as a single dimension are likely to have an incomplete portrayal of the construct, limiting the understanding of a customer's perceptions of value as well as its drivers and consequences.

Second, scholars who conceptualize customer value as multidimensional but operationalize it by including reflective dimensions are likely to incorrectly specify the construct. For example, there is no reason why the "what I receive" components of customer value (such as service quality) should necessarily be correlated with the "what I give up" components (such as perceived sacrifice). Yet, this assumption is normally made when the components are considered to be reflective. By using reflective measures, previous models of customer value may have been misspecified; these misspecifications can affect the conclusions and evidence drawn from empirical research (Jarvis et al. 2003). In future studies, we recommend that researchers who intend including multiple dimensions of customer value

consider using a formative approach unless a convincing argument can be made for a reflective approach being appropriate.

Third, given the influence that the service components of a product's offering can have on a customer's experience, scholars would be well advised to include elements of service when conceptualizing customer value. Ignoring the service dimensions of customer value may mean that an important domain of customer value construct is not being captured.

Our study has provided a framework for conceptualizing customer value to provide guidance to future researchers in terms of each of these implications. That is, we have developed a robust, formative index of customer value that (1) is superior to a reflective measure of value, (2) includes relevant service components, and (3) works well across contexts and cultures.

23.7.3 Limitations and Future Research

We acknowledge certain limitations in this study and suggest some directions for future research. First, our list of service components may not be exhaustive. In this study, a primary objective was to find a salient group of service components that is consistent across contexts and consumers. However, other service components of customer value may be salient in specific situations or for some types of customers. For example, special treatment, another of Gwinner et al.'s (1998) relational benefits, may be meaningful in those contexts where a strong service relationship exists between the provider and customer. Similarly, our division of services into three groups may have prevented us from looking at individual elements pertaining to single service industries. Thus, exploring a single context more deeply may identify some specific components that have been overlooked. And, as mentioned earlier, the insignificant contribution that social benefits – a concept well supported in the literature – makes to the customer value index needs further investigation.

Second, we did not thoroughly analyze customer value differences across contexts. Future study is needed to understand the extent to which value differs not only among service industries, but also among cultures and customer types. For example, future studies should examine the extent to which the relative weights of the various service components differ across cultures. Also, although the importance of the various service value components is fairly consistent across the three industry groups, there is some variation. These variations should be explored in future research.

Third, we did not explore the extent to which customer-related variables might account for differences in the weights of the various value components. Perhaps some customer characteristics (demographics, psychographics, experience with the service, etc.) influence which component of service value is more important. For example, are some value components more important to female customers, to older customers, or to customers with extensive experience with a particular type of service?

Finally, the relative impact of each service value dimension on outcomes of interest to marketers (e.g., customer loyalty, future purchase intentions, word-of-mouth communication) should be assessed. We examined the relationship between service value and two such outcomes (customer satisfaction and repurchase intentions), but only as part of a validity test of the index. Although a positive relationship between unidimensional conceptualizations of customer value and customer loyalty has been established (e.g., Cronin et al. 2000), future research should determine the extent to which the relationship holds when using a multidimensional conceptualization of value. Other research might explore the relative impact that each service value dimension has on these marketing outcomes.

APPENDIX

Measurement Items

SQ: Service Quality
SQ1. In general, this company's service is reliable and consistent.
SQ2. My experience with this company is always excellent.
SQ3. I would say that this company provides superior service.
SQ4. Overall, I think this company provides good service.

SE: Service Equity
SE1. It makes sense to buy this company's services compared to others, even if they are the same.
SE2. Even if another company offers the same service, I would still prefer this company.
SE3. If another company offers services as good as this company's, I would still prefer this company.
SE4. If another company is not different from this company in any way, it still seems smarter to purchase this company's services.

CB: Confidence (Relational) Benefits
CB1. I have more confidence the service will be performed correctly.
CB2. I have less anxiety when I buy/use the services of this company.
CB3. I believe there is less risk that something will go wrong.
CB4. I know what to expect when I go to this company.
CB5. I feel I can trust this company.
SB: Social (Relational) Benefits
SB1. I am recognized by certain employees.
SB2. I enjoy certain social aspects of the relationship.
SB3. I have developed a friendship with the service provider.
SB4. I am familiar with the employee(s) that perform(s) the service.
SB5. At this company, they know my name.

SAC: Perceived Sacrifice
SAC1. The price charged to get this company's services is high.
SAC2. The time required to receive this company's services is high.
SAC3. The effort I expend to receive this company's services is high.

CV: Customer Value (reflective measure)
CV1: The value I receive from this company's services is worth the time, effort and money I have invested
CV2. This company's services are reasonably priced.
CV3. This company offers good services for the price.
CV4. I am happy with the price of this company's services.
CV5. This company makes me feel that I am getting my money's worth.
CV6: The value of this company's services compares favorably to other service providers.
CV7. This company offers good value for the price I pay.

SAT: Customer Satisfaction
SAT1. I am happy with this company's services.
SAT2. Overall, I am pleased when I purchase this company's services.
SAT3. Using this company's services is a satisfying experience.
SAT4. My choice to use this company was a wise one.
SAT5. Overall, I am satisfied with this company.
SAT6. I think I did the right thing in deciding to use this company for my service needs.

RP: Repurchase Intentions
RP1. I intend to continue doing business with this company in the future.
RP2. As long as the present service continues, I doubt that I would switch companies.
RP3. I will choose this company the next time I need this service.

Note: All items used seven-point Likert scales with anchors 1 ("strongly disagree") and 7 ("strongly agree").

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