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The Performance Impact
of Strategy Alignment in
Purchasing and Supply
Management

Systematic Review, Construct Analysis
and Development of a New Overall
Alignment Index



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The Performance Impact of Strategy Alignment in Purchasing and Supply Management: Systematic Review, Construct Analysis and Development of a New Overall Alignment Index

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Zusammenfassung:

Das vorliegende Working Paper untersucht die Performancewirkung eines multi-dimensionalen Strategie-Alignments in der Beschaffung. Hierfür wird zunächst ein Systematischer Literatur Review durchgeführt und der Wissenstand im Forschungsfeld erhoben. Die systematische Klassifikation, Analyse, Bewertung und Synthese der identifizierten 29 empirischen Studien erfolgt dabei auf der Grundlage eines konzeptionellen Frameworks und zugehöriger Inhaltskategorien sowie weiterer methodischer Vergleichsgrößen. Die Ergebnisse dieser Untersuchung zeigen nachdrücklich auf, dass eine Abstimmung, Harmonisierung und Verbindung von Beschaffungsstrategien (1) mit den übergeordneten Unternehmenszielen und -strategien, (2) anderen funktionalen Teilbereichen, sowie (3) der Lieferantenbasis (unter Berücksichtigung der kontextbezogenen Anforderungen und Gegebenheiten) zu signifikant positiven Performance-Effekten beiträgt. Insofern sollten die Empfehlungen dieser Untersuchung für ein holistisches Strategie-Alignment im Einkauf herangezogen werden. Neben der Ableitung von Implikationen für die Unternehmenspraxis wird eine Forschungsagenda für interessierte Wissenschaftler erarbeitet, indem inhaltliche Wissenslücken und methodische Verbesserungspotenziale auf Basis des Bezugsrahmens und einschlägiger Referenztexte definiert sowie zukünftige Forschungsbedarfe aufgezeigt werden. Darauf aufbauend wird die zentrale (bis dato unbeantwortete) Forschungsfrage eines integrativen Strategie-Alignment-Index durch die Operationalisierung der zugehörigen Konstrukte sowie der Formulierung entsprechender Hypothesen als Grundlage für die Durchführung einer empirischen Studie adressiert.

JEL-Klassifikation: M19, L22

Schlüsselworte: Beschaffung; Einkauf; Procurement; Sourcing; Purchasing; Supply Management; Alignment; Performance; Outcomes; (Systematischer) Literatur Review; State-of-the-Art; Systematischer Überblick; Empirische Forschung

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Abkürzungsverzeichnis

AMOS:	Analysis of Moment Structure
ANCOVA:	Analysis of Covariance
ANOVA:	Analysis of Variance
BP:	Business Performance
BSP:	Business Source Premier
CAPS:	Center for Advanced Purchasing Studies
CEO:	Chief Executive Officer
CFA:	Confirmatory Factor Analysis
CIPS:	Chartered Institute of Purchasing & Supply
COGS:	Cost of Goods Sold
CPO:	Chief Procurement Officer
CT:	Contingency Theory
DA:	Descriptive Analysis
DCV:	Dynamic Capabilities View
EBITDA:	Earnings Before Interest, Taxes, Depreciation and Amortization
EFA:	Explorative Factor Analysis
FA:	Factor Analysis
GT:	Grounded Theory
H:	Hypothesis
HA:	Horizontales Alignment
IBB:	Industrial Buyer Behavior
IJOPM:	International Journal of Operations & Production Management
IJPE:	International Journal of Production Economics
IJPR:	International Journal of Production Research
IMDS:	Industrial Management & Data Systems
IMSS:	International Manufacturing Strategy Survey
ISM:	Institute for Supply Management
JBIM:	Journal of Business & Industrial Marketing
LA:	Lieferantenbezogenes Alignment
LISREL:	Linear Structural Relations
MANOVA:	Multivariate Analysis of Variance
MBV:	Market-Based View
MGMTS:	Management Science
MP:	Manufacturing Performance
MS:	Market Share
NAPM:	National Association of Purchasing Management
NIT:	Net Income before Taxes
NLR:	Narrativer Literatur Review
PAT:	Principal-Agent Theory
PCA:	Principal Component (Factor) Analysis
PLS:	Partial Least Squares
POM:	Production and Operations Management
PSM:	Purchasing and Supply Management

PSMAI:	.....Purchasing and Supply Management Alignment Index
PSP:	..... Purchasing and Supply Performance
PV:	..... Present Value of the Firm
RBV:	..... Resource-Based View
RDT:	..... Resource Dependence Theory
RFQ:	..... Request for Quotation
ROA:	..... Return on Assets
ROE:	..... Return on Equity
ROI:	..... Return on Investment
ROS:	..... Return on Sales
RQ:	..... Research Question
RV:	..... Relational View
SAS:	..... Statistical Analysis Software
SBU:	..... Strategic Business Unit
SCC:	..... Supply Chain Collaboration
SCI:	..... Supply Chain Integration
SCT:	..... Social Comparison Theory
SEM:	..... Structural Equation Modeling
SHT:	..... Stakeholder Theory
SIC:	..... Standard Industrial Classification
SLR:	..... Systematischer Literatur Review
SNT:	..... Social Network Theory
SOIJ:	..... Strategic Outsourcing: An International Journal
SP:	..... Supplier Performance
SPSS:	..... Statistical Package for the Social Sciences
TCT:	..... Transaction Cost Theory
TPC:	..... Theory of Production Competence
VA:	..... Vertikales Alignment

1 Einleitung

Die **Problemstellung** dieser Arbeit betrifft die aktuell stark zunehmende performanceorientierte Ausrichtung der Beschaffungsfunktion (PSM¹). So sind sich Wissenschaft und Praxis dahingehend uneingeschränkt einig, dass systematisch abgeleitete Beschaffungsstrategien die Leistungs- und Wettbewerbsfähigkeit eines Unternehmens signifikant beeinflussen.² Der Erfolg dieser strategischen Steuerungs- und Managementmaßnahmen im PSM hängt jedoch entscheidend davon ab, in welchem Umfang die getroffenen Entscheidungen und Aktivitäten (1) mit den übergeordneten Unternehmenszielen und -strategien, (2) anderen funktionalen Teilbereichen, sowie (3) der Lieferantenbasis abgestimmt werden.³ Zur Realisierung positiver Wertbeiträge sollten deshalb die drei genannten **Strategie-Alignment-Dimensionen** harmonisiert und verbunden sowie unter Berücksichtigung der kontextbezogenen Anforderungen und Gegebenheiten angepasst werden. Da diese multi-dimensionalen Abstimmungsmechanismen die zentrale Grundlage einer performanceorientierten Ausrichtung des PSM darstellen, wird in dieser Arbeit der State-of-the-Art zur Verknüpfung von Strategien und Zielen im PSM und der daraus resultierenden Performance-Effekte präsentiert. Für den weiteren Gang der Untersuchung werden daher folgende **Sub-Ziele** formuliert:

- *Forschungsziel 1:* Identifikation und Klassifikation der empirischen Strategie-Alignment-Studien im PSM, Analyse der untersuchten Relationen und Performance-Effekte sowie kritische Reflexion und Bewertung der Erkenntnisse.
- *Forschungsziel 2:* Erstellung eines konzeptionellen Frameworks mit den wesentlichen Alignment-Dimensionen, welches die wissenschaftlichen Befunde synthetisiert und zudem die Empfehlungen für die Unternehmenspraxis strukturiert.
- *Forschungsziel 3:* Ableitung inhaltlicher und methodischer Forschungslücken auf Basis des analytischen Bezugsrahmens und einschlägiger Referenztexte.
- *Forschungsziel 4:* Entwicklung eines neuen, integrativen Strategie-Alignment-Index und Formulierung entsprechender Forschungshypothesen zur Durchführung einer empirischen Studie.

¹ In Übereinstimmung mit CARR/ SMELTZER (1997, 2000), CARR/ PEARSON (1999, 2002), ELLRAM/ CARR (1994), GLOCK/ HOCHREIN (2011) und HOCHREIN/ GLOCK (2012), PSM was defined as the process of planning, implementing, evaluating, and controlling strategic and operative purchasing decisions for directing all activities of the PSM function towards opportunities consistent with the firm's capabilities to achieve its long-term goals and plans.

Der in dieser Arbeit verwendete Beschaffungsbegriff entspricht damit der englischsprachigen Übersetzung von *Purchasing and Supply Management*, so dass im weiteren Verlauf der Untersuchung die entsprechende Abkürzung PSM verwendet wird.

² Vgl. die in Anlage 5 angeführten Ergebnisse der empirischen Studien sowie Spekman, R. E.; Kamauff, J. W.; Salmond, D. J., *Purchasing*, 1994, S. 76-84; Ellram, L. M.; Liu, B., *Impact*, 2002, S. 30-37; Ellram, L. M. et al., *Purchasing*, 2002, S. 4-17; Hochrein, S., *Optimiertes Einkaufsmanagement*, 2014, S. 10.

³ Vgl. Farmer, D., *Strategies*, 1981, S. 114-121; Watts, C. A.; Kim, K. Y.; Hahn, C. K., *Purchasing*, 1995, S. 2-8.

Zur Realisierung der aufgezeigten Forschungsziele gestaltet sich der *Aufbau der Arbeit* wie folgt: Im Anschluss an die Einleitung im ersten Abschnitt definiert Kapitel 2 zunächst die methodischen Referenzpunkte der Untersuchung und führt einen *Systematischen Literatur Review*⁴ durch, welcher die Grundlage für die Entwicklung der *Research Agenda*⁵ bildet. Der Literatur Review ist demnach als eine *Sekundärstudie* zu bezeichnen, welche den Wissensstand im Forschungsfeld erhebt und sämtliche Erkenntnisse der zuvor identifizierten *Primärstudien* zur Performancewirkung des Strategie-Alignment im PSM aggregiert.⁶ Für eine systematische Auswertung in Kapitel 3 und 4 werden zunächst jeweils unabhängige Klassifikationsschemata und Inhaltskategorien definiert. So werden im dritten Kapitel mögliche Abstimmungsoptionen von Strategien und Zielen im PSM mit den verschiedenen Ebenen und Akteuren diskutiert (Konstrukt-Analyse der unabhängigen Variablen), während im vierten Kapitel eine Auseinandersetzung mit der Konzeptionalisierung und Operationalisierung der verwendeten Performance-Konstrukte erfolgt (Konstrukt-Analyse der abhängigen Variablen). Kapitel 5 führt die beiden vorangegangenen Überlegungen in einem konzeptionellen Framework zusammen, nimmt eine systematische Auswertung der erforschten Kausalzusammenhänge vor und reflektiert die (zumindest teilweise widersprüchlichen) Ergebnisse der vorliegenden Primärstudien kritisch. Die Entwicklung einheitlicher Begriffsstandards und methodischer Inhaltsgruppen durch den konzeptionellen Bezugsrahmen erlaubt es zudem, wichtige Praxis-Implikationen zu formulieren. Darüber hinaus werden in Kapitel 3, 4 und 5 auch konkrete Forschungsempfehlungen abgeleitet und der zukünftige Forschungsbedarf determiniert. Kapitel 6 nimmt eine Priorisierung der zu lösenden Problemstellungen vor, indem es die Grundlagen einer empirischen Studie zur Auswirkung eines mehrdimensionalen Strategie-Alignment im PSM auf unterschiedliche Performance-Dimensionen konstituiert. Hierfür werden ein sogenannter *PSM-Alignment-Index* (PSMAI) erarbeitet und korrespondierende Hypothesen formuliert. Die Präsentation des Forschungsdesigns umfasst dabei auch die Konzeptualisierung und Operationalisierung der Konstrukte. Im letzten Kapitel erfolgen Schlussbetrachtung und Ausblick.

⁴ Als Referenztexte zur Durchführung eines Systematischen Literatur Reviews wurden die Arbeiten von GLOCK/ HOCHREIN (2011), HOCHREIN/ GLOCK (2012) und HOCHREIN/ BOGASCHEWSKY/ HEIDER (2014) herangezogen.

⁵ Als Referenztexte zur Entwicklung einer Research Agenda wurden die Arbeiten von BEAMON (1998, 1999), NEELY/ GREGORY/ PLATTS (1995), GARENGO/ BIAZZO/ BITITCI (2005), ROTH/ MENOR (2003), BONNEY/ JABER (2014), AMOAKO-GYAMPAH/ MEREDITH (1989), GARGEYA/ SU (2004), SU/ GARGEYA (2012a), PANNIRSELVAM ET AL. (1999), SONI/ KODALI (2012, 2013) und MILLER (1981) sowie die in Fußnote 12 aufgeführten Performance-Studien herangezogen.

⁶ COOPER (2010) definiert eine Primärstudie als eigenständige bzw. neue Erhebung von Datenmaterial (vgl. Cooper, H. M., Research Synthesis, 2010, S. 3); Sekundärstudien fokussieren demgegenüber die Analyse, Bewertung und Synthese von Primärstudien.

2 Grundlagen der Untersuchung

2.1 Systematischer Literatur Review und deskriptive Auswertung

Um die in Kapitel 1 formulierten Forschungsziele 1-4 zu erreichen wurde ein Systematischer Literatur Review (SLR) durchgeführt.⁷ Der SLR stellt dabei eine eigenständige wissenschaftliche Leistung dar, indem sehr fokussierte Forschungsfragen von hohem Neuigkeitsgrad formuliert werden und die identifizierte Fachliteratur einer systematischen Analyse, transparenten Auswertung sowie kritischen Begutachtung unterzogen wird. Des Weiteren trägt die Synthese und Integration der vorliegenden wissenschaftlichen Erkenntnisse zur Entstehung neuen Wissens bei und generiert darüber hinaus eigenständige Ergebnisse.⁸ Im Gegensatz zu einem Narrativen Literatur Review (NLR), der einen eher deskriptiven Charakter aufweist, zeichnet sich diese Literaturstudie hingegen durch evidenz-basierte Schlussfolgerungen aus.⁹ Dementsprechend wurde ein *Review-Protokoll* mit Informationen zu *Aufnahme- und Ausschlusskriterien*, *Suchbegriffen* und *Recherchestrategien* erarbeitet, um Objektivität, Transparenz und Reproduzierbarkeit der Datensammlung und -auswertung zu gewährleisten.¹⁰ Die Dokumentation der angewandten kombinierten Recherchestrategien umfasst dabei die *Sucheinstellungen* und die *Suchstrings*. Die *Extraktion der Daten* und *kritische Analyse* relevanter Informationen aus den identifizierten Texten erfolgt mit Hilfe eines standardisierten Excel-Files.¹¹ Um neben dem Risiko für methodische Verzerrungen auch die Anfälligkeit für strukturelle Auswertungsfehler zu reduzieren, wurde eine *ex-ante Analyse verwandter Performance-Reviews* durchgeführt.¹² Diese Berücksichtigung eng verwandter, respektive angrenzender Forschungsbereiche reduziert Beliebigkeit und Unschärfe in

⁷ Vgl. Glock, C. H.; Hochrein, S., *Purchasing Organization*, 2011, S. 149-191; Hochrein, S.; Bogaschewsky, R.; Heider, M., *Reviews*, 2014; Hochrein, S.; Glock, C. H., *Systematic Literature Reviews*, 2012, S. 215-245.

⁸ Vgl. Hochrein, S.; Bogaschewsky, R.; Heider, M., *Reviews*, 2014, S. 4 f.

⁹ Vgl. Cooper, H. M., *Research Synthesis*, 2010, S. 6.

¹⁰ Vgl. Hochrein, S.; Bogaschewsky, R.; Heider, M., *Reviews*, 2014, S. 12 ff. und die dort zitierte Literatur.

¹¹ Die hierfür vorab festgelegten methodischen und inhaltlich-konzeptionellen Auswertungsdimensionen werden in den einzelnen Kapiteln jeweils detailliert erläutert. Die systematische Verknüpfung der Erkenntnisse erfolgt dann auf Basis dieser Bezugspunkte und bildet den Ausgangspunkt für die Entwicklung der Research Agenda sowie des Alignment-Index.

¹² Folgenden Sekundärstudien wurden im Detail analysiert, einer strukturierten methodischen und inhaltlichen Evaluation unterzogen und dienten als zentrale literaturbasierte Referenzpunkte: CHOW ET AL. (1994), CONDING ET AL. (2012), DELBUFALO (2012), ELROD ET AL. (2013), GIMÉNEZ/TACHIZAWA (2012), GOLICIC/ SMITH (2013), GUNASEKARAN ET AL. (2001), FABBE-COSTES/ JAHRE (2007, 2008), FRANCIS ET AL. (2014), GOPAL/ THAKKAR (2012), KIM (2013), LEUSCHNER/ ROGERS/ CHARVET (2013), LEUSCHNER/ CHARVET/ ROGERS (2013), LEUSCHNER ET AL. (2014), MOLINA-AZORÍN ET AL. (2009a, b), NAKANO/ AKIKAWA (2014), NÄSLUND/ HULTHEN (2012), KANNAN/ TAN (2005), MACKELPRANG/ NAIR (2010), MACKELPRANG ET AL. (2014), SAKAKIBARA ET AL. (1997), SHEPHERD/ GÜNTER (2006), SHI/ YU (2013), SUCKY/ DURST (2013), TERPEND ET AL. (2008), VAN DER VAART/ VAN DONK (2008), WOWAK ET AL. (2013), ZHANG ET AL. (2011) und ZIMMERMANN/ FOERSTL (2014).

der methodischen und inhaltlichen Auswertung der Alignment-Studien, indem durch einen kritischen Vergleich der Evaluationsdimensionen der jeweils identifizierten Fachpublikationen sehr fundierte Bewertungskategorien herausgearbeitet werden konnten:

- **Content Categories:** Im Ergebnis zeigt sich, dass inhaltliche Auswertungskategorien auf der Grundlage eines kombinierten induktiven oder deduktiven Verfahrens hergeleitet werden sollten. Daher wurden die Kategorien dieser Untersuchung zunächst auf Basis einer Pre-Sample deduktiv entwickelt, anschließend mit Hilfe der identifizierten Studien grundlegend induktiv überprüft und final in einem analytischen Bezugsrahmen zusammengefasst.¹³
- **Empirical Survey-based Categories:** Im Ergebnis zeigt sich, dass die methodischen Auswertungskategorien *Country Coverage, Survey Instrument, Sample Firms' Industries, Time Frame, Sample Firms' Size, Sampling Frame and Respondents' Profile, Sample Size and Effective Response Rates, Unit of Analysis, Used Theories, Statistical Techniques of Analysis, Data Sources, Mode of Assessment* und *Relativization' of Subjective Data* für eine fundierte Gegenüberstellung herangezogen werden sollten.¹⁴

Im folgenden Abschnitt wird die von den Autoren 2013 durchgeführte Literaturrecherche und -auswahl umfassend dargestellt. Die Recherchestrategie kombiniert dabei einen datenbankbasierten Scan von Fachzeitschriften, eine gezielte Analyse von Publikationslisten von Fachautoren, ein Schneeball-Verfahren und eine besondere Form der Expertenbefragung.¹⁵ In einem *ersten Schritt* wurden allerdings zunächst folgende Selektionskriterien definiert:

- **Inhalt:** Der thematische Schwerpunkt des Artikels muss im Forschungsfeld des PSM liegen und den Einfluss des Strategie-Alignments (*actively managed practices as independent or enabling/ mediating/ moderating variables*) auf die Performance des einkaufenden Unternehmens (*performance outcomes as dependent variables*) untersuchen. Empirische Studien mit exklusivem Fokus auf die Supplier Performance (SP) sind per definitionem ausgeschlossen.
- **Methodik:** Der Artikel muss zudem eine groß-zahlige empirische Studie durchführen, d. h. Fallstudien, konzeptionelle Artikel, etc. werden per se exkludiert.
- **Zeitraum/ Sprache:** Der Artikel musste in englischer Sprache und zunächst (!) im Zeitraum von 1998 bis 2013 publiziert worden sein. Über eine Expertenbefragung wurde diese temporäre Beschränkung jedoch aufgehoben und das gesamte Forschungsgebiet ohne zeitliche Begrenzung erfasst.
- **Publikationsmedium:** Der Artikel muss in einer begutachteten, akademischen Fachzeitschrift veröffentlicht worden sein. Konferenzbeiträge, Delphi-Studien, Monographien und Beiträge in Herausgeberschaften werden daher per se nicht berücksichtigt.

¹³ Vgl. Hochrein, S.; Bogaschewsky, R.; Heider, M., Reviews, 2014, S. 7 und die dort angeführten Literaturhinweise.

¹⁴ Vgl. hierzu auch Soni, G.; Kodali, R., Critical Review, 2012, S. 759 f.

¹⁵ Zur angewandten Methodik vgl. die einschlägigen Fachpublikationen von Glock, C. H.; Hochrein, S., Purchasing Organization, 2011; Hochrein, S.; Bogaschewsky, R.; Heider, M., Reviews, 2014; Hochrein, S.; Glock, C. H., Systematic Literature Reviews, 2012, S. 215-245 und dortige Verweise auf Reynolds, N.; Simintiras, A.; Vlachou, E., Present Knowledge, 2003, S. 236-261; David, R. J.; Han, S.-K., Assessment, 2004, S. 39-58; Newbert, S. L., Empirical Research, 2007, S. 121-146.

Darauf aufbauend wurde im *zweiten Schritt* eine **Journalauswahl**¹⁶ von 11 qualitativ-hochwertigen (double-blind) peer-reviewed PSM-Zeitschriften getroffen, die insbesondere auch dafür bekannt sind, empirische Studien zu publizieren (vgl. Darstellung 1).¹⁷

<i>Journals</i>	<i>ISSN</i>	<i>SNIP</i>	<i>JQL</i>	<i>Erscheint seit</i>	<i>Recherche-Zeitraum</i> ¹⁸
IJISM	1477-5360	0,426	no	2004-	2004-
IJLM	0957-4093	no	x	1990-	1998-
IJL-RA	1367-5567	0,403	x	1998-	1998-
IJPDLM	0960-0035	1,563	x	1971-	1998-
JBL	0735-3766	not	x	1978-	1998-
JOM	0272-6963	4,785	x	1980-	1998-
JPSM/ EJPSM	1478-4092/ 0969-7012	1,342	x	1994-	1998-
JSCM/ IJPM	1523-2409/ 1055-6001	1,689	x	1965-	1998-
SCMIJ	1359-8546	1,978	x	1996-	1998-
SCMR	1521-9747	no	no	1997-	2012-
TR-E	1366-5545	2,586	x	1965-	1998-

Darstellung 1: Journalauswahl des Systematischen Literatur Reviews

Im *dritten Schritt* wurden **Suchbegriffe** definiert und in drei Gruppen eingeteilt: **Gruppe A** stellt den thematischen PSM-Bezug sicher („buy*“, „procurement“, „purchasing“, „supply“ und „sourcing“), während **Gruppe B** die Performance-Schlüsselwörter („advantage“, „benefit“, „earning*“, „effectiveness“, „financial impact“, „gain“, „improvement“, „performance“, „profit“, „revenue“, „return“ und „value“) umfasst. **Gruppe C** bezieht sich auf methodische Referenzen („analysis“, „data“, „empirical“, „statistical“, „study“, „survey“ und „test“), um das Erfassen von ausschließlich empirischen Forschungsbeiträgen zu gewährleisten. Anschließend wurden für die 11 vor-selektierten Journals individuelle Search-Strings definiert und die Recherche via *Business Source Premier* (BSP) durchgeführt.¹⁹

¹⁶ Vgl. Hochrein, S.; Glock, C. H., Systematic Literature Reviews, 2012, S. 243 und die dort angeführten Referenztexte von Menachof, D. A. et al., Value, 2009, S. 145-166; Zsidisin, G. A. et al., Evaluation Criteria, 2007, S. 165-183; Harland, C. M. et al., Supply Management, 2006, S. 738; Harzing, A. W. K., Journal Quality List, 2013.

¹⁷ Die Konzentration auf double-blind peer reviewed Journals erhöht die Qualität des SLR, da diese Zeitschriften wesentlich strengere Anforderungen an eine Publikation definieren.

¹⁸ Diese temporäre Beschränkung wurde jedoch über eine (sich über das gesamte Forschungsgebiet und ohne zeitliche Eingrenzung) erstreckende Expertenbefragung abgedeckt.

¹⁹ Vgl. exemplarisch den BSP-Such-String des JBL: (TI ((buy* OR 'procurement' OR 'purchasing' OR 'sourcing' OR 'supply') AND ('advantage' OR 'benefit' OR 'earning*' OR 'effectiveness' OR 'financial impact' OR 'gain' OR 'improvement' OR 'performance' OR 'profit' OR 'revenue' OR 'return' OR 'value') AND ('data' OR 'empirical' OR 'statistical' OR 'study' OR 'survey' OR 'test' OR 'analysis')) OR AB (('buying' OR 'procurement' OR 'purchasing' OR 'sourcing' OR 'supply') AND ('advantage' OR 'benefit' OR 'earning*' OR 'effectiveness' OR 'financial impact' OR 'gain' OR 'improvement' OR 'performance' OR 'profit' OR 'revenue' OR 'return' OR 'value') AND ('data' OR 'empirical' OR 'statistical' OR 'study' OR 'survey' OR 'test' OR 'analysis')) OR SU (('buying' OR 'procurement' OR 'purchasing' OR 'sourcing' OR 'supply') AND ('advantage' OR 'benefit' OR 'earning*' OR 'effectiveness' OR 'financial impact' OR 'gain' OR 'im-

In einem *vierten Schritt* wurde dann die **Überprüfung** der 1198 identifizierten Artikel auf Basis der oben angeführten Selektionskriterien vorgenommen, wobei 15 Publikationen als relevante Beiträge eingestuft wurden. Anschließend wurde eine freie Suche in der BSP Datenbank ausgeführt.²⁰ Aufgrund der sehr großen Trefferanzahl (12.292) wurde jedoch von einer detaillierten Analyse abgesehen und stattdessen eine *Autorensuche*, ein *Schneeball-Verfahren* und eine *Expertenbefragung* vorgenommen.

<i>Recherche-Strategie</i> ¹	<i>Beschreibung der Recherche-Strategie</i>	<i>Treffer</i>	<i>Relevanz</i>
Journals	Recherche in den ausgewählten PSM-Journals via BSP-spezifischer Such-Strings. Journal (Datenbank-Treffer/ Relevanz): IJISM (0/ 1), IJLM (129/ 0), IJL-RA (78/ 0), IJPDLM (248/ 0), JBL (64/ 1), JOM (135/4), (E)JPSM (78/ 3), JSCM/ IJPM (109/ 6), SCMIJ (322/ 0), SCMR (0/ 0), TR-E (35/ 0)	1.198	15
Autorensuche	Auswertung der Publikationslisten aller (Co-)Autoren der bereits identifizierten 17 empirischen Studien.		3
Schneeball-Prinzip	Auswertung der Literaturverzeichnisse der bereits identifizierten 18 Artikel via vorwärts- und rückwärtsgerichteter Suche über BSP und Google Scholar.		9
Expertenbefragung	Vergleich des generierten Datensatz mit dem Sample eines verwandten SLR-Forschungsprojekts im PSM.		2
Total			29

Legende: ¹ Die per Autorensuche, Schneeball-Prinzip oder Expertenbefragung identifizierten Texte wurden in folgenden Zeitschriften publiziert: International Journal of Operations & Production Management (IJOPM): 5; Production and Operations Management (POM): 2; International Journal of Production Research (IJPR): 2; International Journal of Production Economics (IJE): 1; Journal of Business & Industrial Marketing (JBIM): 1; Management Science (MGMTS): 1; Strategic Outsourcing: An International Journal (SOIJ): 1; Industrial Management & Data Systems (IMDS): 1.

Darstellung 2: Ergebnisse der Literaturrecherche und -auswahl

Wie die konsolidierten Ergebnisse der Literaturrecherche und -auswahl in Darstellung 2 zeigen, konnten insgesamt 29 relevante, englischsprachige empirische Studien im definierten Zeitraum von 1998 bis 2013 identifiziert werden, die sich intensiv mit dem Strategie-Alignment im PSM auseinandersetzen.²¹ Die Anzahl der Publikationen verteilt sich auf insgesamt 13 Journals, wobei die Zeitschriften JSCM (6), IJOPM (5), JOM (4)

provement' OR 'performance' OR 'profit' OR 'revenue' OR 'return' OR 'value') AND ('data' OR 'empirical' OR 'statistical' OR 'study' OR 'survey' OR 'test' OR 'analysis')) AND IS 07353766.

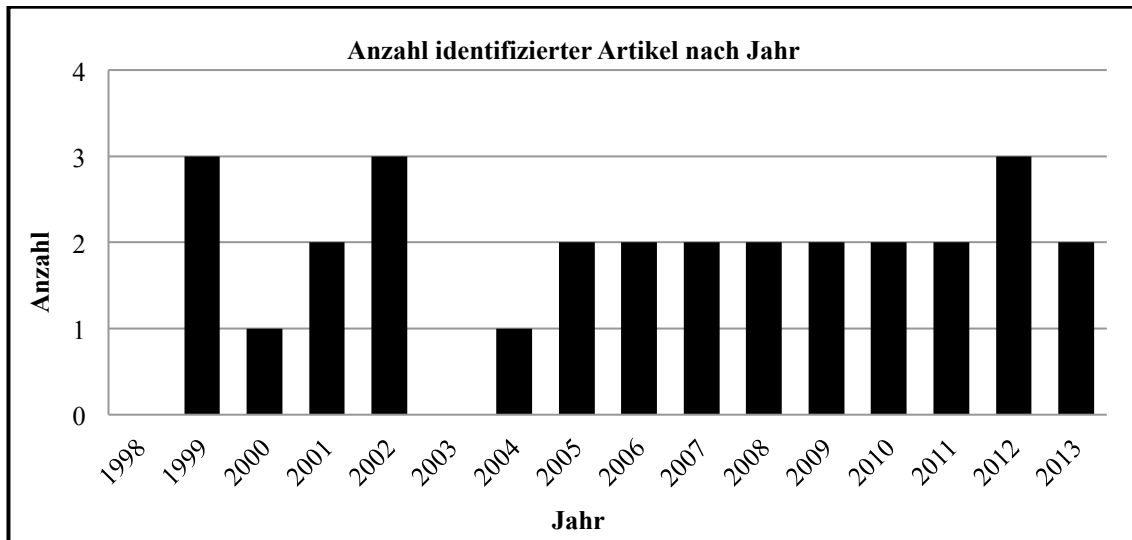
²⁰

Für die freie Suche wurden die 11 zuvor durchsuchten Journals ausgeschlossen.

²¹

Die relevanten empirischen Studien sind im Literaturverzeichnis mit "*" gekennzeichnet. Nach intensiver Diskussion erfolgte der begründete Ausschluss folgender Studien: CARR/ SMELTZER (1999a) formulierten keine direkte Hypothese zum Kausalzusammenhang von *strategic purchasing* und *firm performance*, sondern untersuchten die Performance-Implicationen von *benchmarking* im PSM. CARR/ SMELTZER (2000) wiederum betrachteten *purchasing skills* als unabhängige Variable. DAS (2001) erforschte die Abstimmung von Produktions- und Unternehmensstrategie und die daraus resultierenden Performanceeffekte. HARTMANN/ KERKFELD/ HENKE (2012) entwickelten für ihre Analysen lediglich ein integratives „combined construct“. REBOLLEDO/ JOBIN (2013) beziehen den Performance-Impact nicht auf die Abstimmung der funktionalen Bereiche (Beschaffung und Produktion), sondern auf Maßnahmen in der Produktion.

und (E)JPSM (3) mehr als 60 % der identifizierten Alignment-Texte veröffentlichten. Eine chronologische Verteilung der empirischen Studien findet sich in Darstellung 3.²²



Darstellung 3: Chronologische Analyse der empirischen Studien

2.2 Methodische Begutachtung der identifizierten empirischen Studien

Unter Rekurs auf die in Kapitel 2.1 abgeleiteten Auswertungsdimensionen und der vergleichenden Gegenüberstellung dieser *methodischen Variablen* in Anlage 1, werden die zentralen Ergebnisse der Auswertung nun im Folgenden zusammenfassend dargestellt und zugehörige wissenschaftstheoretische Empfehlungen abgeleitet.

Country Coverage

Die Analyse des geographischen Fokus der empirischen Forschungsbeiträge zeigt zunächst, dass primär *single-country* (25) und weniger *multi-national* (4) Settings zugrunde gelegt wurden. Dementsprechend hat auch keine Studie länderbezogene Sub-Samples gebildet, um etwaige Einflüsse und diesbezügliche Effekte zu untersuchen. Auffällig ist zudem, dass zwar ein sehr breites Länder-Spektrum abgedeckt wird, aber insbesondere die USA mit 19 Studien weit überdurchschnittlich repräsentiert ist.

Empfehlung 1: In Zukunft sollten empirische Studien auch in den zunehmend wichtigeren Ländern wie China oder Indien durchgeführt werden, da die relative Stärke des Strategie-Alignment-Performance-Links von kulturellen und landes-typischen Faktoren sehr stark beeinflusst wird.²³

²² Die ersten Strategie-Alignment Studien im PSM wurden im Jahre 1999 von der Forschergruppe um CARR, PEARSON und SMELTZER publiziert (vgl. Carr, A. S.; Pearson, J. N., Relationships, 1999, S. 497-519; Carr, A. S.; Smeltzer, L. R., Strategic Purchasing, 1999b, S. 43-51).

²³ Vgl. Yang, C. L. et al., Efficacy, 2013, S. 49-68 und insbesondere S. 63 f.; Shi, M.; Yu, W., Review, 2013, S. 1311.

Die Einbeziehung kultureller Faktoren erfolgt in den untersuchten Studien lediglich in der Arbeit von SU/ GARGEYA (2012b), welche kulturelle Unterschiede in der Operationalisierung des „sourcing capability“-Konstrukts berücksichtigt (vgl. Su, J.; Gargeya, V. B., Sourcing, 2012b, S. 153).

Survey Instrument

Die Analyse spricht dafür, dass sich die Wissenschaftler bzgl. der Anwendung, der Ausgestaltung und des Versands der Survey Instruments mehrheitlich an den Empfehlungen von DILLMAN/ SMYTH/ CHRISTIAN (2009) orientieren.²⁴ Die Umfragen wurden dabei primär elektronisch via Mail Surveys (23) und weniger über Web-basierte Surveys (4) oder Interviews/ Mail Surveys (2) durchgeführt. Dennoch führen die niedrigen Administrationskosten und die sehr einfache Umsetzung gerade in den letzten Jahren zu einer zunehmenden Nutzung von web-basierten Umfragen.²⁵

Empfehlung 2: In Zukunft sollten instrumenten-bezogene Verbesserungsvorschläge der Literatur noch stärker berücksichtigt werden, da die spezifischen Vor- und Nachteile der unterschiedlichen Methoden der Datenerhebung den Erfolg einer Umfrage sehr stark beeinflussen können.²⁶

Sample Firms' Industries

Die Analyse der Industrie- bzw. Branchenzugehörigkeit weist zunächst nach, dass vorrangig *cross-industry* (27) und weniger *single-industry* (2)²⁷ Settings gewählt wurden. Dies lässt sich dadurch erklären, dass *cross-industry* Umfragen c.p. zu größeren Stichproben führen und damit zu einer höheren Repräsentativität der Ergebnisse beitragen. Darüber hinaus kann in einem *cross-industry* Setting die Branchenzugehörigkeit sehr gut als Kontrollvariable verwendet werden.²⁸ Zur Klassifikation wurde vornehmlich die *standard industry classification* (14) herangezogen. Eine tiefere Analyse der Studien zeigte dann zwar ein sehr breites Spektrum an industriellen Sektoren, aber insbesondere auch einen sehr dominanten Fokus auf *manufacturing firms* (22).

Empfehlung 3: In Zukunft sollte das Dienstleistungsgewerbe wesentlich stärker berücksichtigt werden, da die vorliegenden Erkenntnisse aus der produzierenden Industrie nicht 1:1 übertragbar sind.²⁹

²⁴ Vgl. Dillman, D. A.; Smyth, J. D.; Christian, L. M., *Surveys*, 2009.

²⁵ Vgl. hierzu die web-basierten Umfragen von LAWSON ET AL. (2009), BERNARDES (2010), BERNARDES / ZSIDISIN (2008) und SCHOENHERR/ MABERT (2011).

²⁶ Vgl. Klassen, R.; Jacobs, J., *Comparison of Web*, 2001, S. 713-728; Dillman, D. A.; Smyth, J. D.; Christian, L. M., *Surveys*, 2009; Fan, W.; Yan, Z., *Survey*, 2010, S. 132-139; Boyer, K. K. et al., *Surveys*, 2002, S. 357-373; Braunsberger, K.; Wybenga, H.; Gates, R., *Surveys*, 2007, S. 758-764.

²⁷ Exemplarisch sei hier auf die Studien von Su, J.; Gargeya, V. B., *Sourcing*, 2012b, S. 145-165; Su, J., *Sourcing*, 2013, S. 23-38 verwiesen (US-amerikanische Textilindustrie).

²⁸ Die Industrie wird in folgenden Studien als Kontrollvariable eingesetzt: BAIER ET AL. (2008), CARR/ PEARSON (1999, 2002), DAVID ET AL. (2002), GONZÁLEZ-BENITO (2010).

²⁹ Vgl. Bernardes, E. S.; Zsidisin, G. A., *Supply Management*, 2008, S. 217; Chen, I. J.; Paulraj, A.; Lado, A. A., *Firm Performance*, 2004, S. 519; Chiang, C. Y. et al., *Agility*, 2012, S. 70; Lawson, B. et al., *Performance*, 2009, S. 2662; Paulraj, A.; Chen, I. J., *Dyadic Quality Performance*, 2005b, S. 14; Paulraj, A.; Chen, I. J., *Implications*, 2007, S. 37; Paulraj, A.; Chen, I. J.; Flynn, J., *Strategic Purchasing*, 2006, S. 119; Sánchez-Rodríguez, C., *Strategic Purchasing*, 2009, S. 170; Su, J.; Gargeya, V. B., *Sourcing*, 2012b, S. 161.

Time Frame

Die 29 identifizierten empirischen Umfragen repräsentieren *cross-sectional studies*, die auf einer einmaligen Datenerhebung fußen. *Longitudinal studies*, d. h. wiederholte Messungen an verschiedenen Zeitpunkten, wurden bisher nicht durchgeführt.³⁰

Empfehlung 4: In Zukunft sollten vermehrt *longitudinal* Forschungsdesigns zum Einsatz kommen, um Veränderungen über die Zeit interpretieren zu können.

Sample Firms' Size

Die Analyse der Unternehmensgröße zeigt, dass sich die Definition der *company size* doch sehr stark unterscheidet und zudem nicht alle Artikel diesbezügliche Informationen exakt dokumentieren. Dennoch kann festgehalten werden, dass tendenziell eher mittlere bis große Unternehmen befragt wurden.³¹

Empfehlung 5: In Zukunft sollte die Unternehmensgröße anhand mehrerer adäquater Indikatoren sehr genau erfasst und explizit dokumentiert werden, um den Einfluss der *company size* bspw. als *control variable* auf die relative Stärke des Strategie-Alignment-Performance-Links zu untersuchen.

Sampling Frame and Respondents' Profile

Primär wird in den untersuchten Studien ein *simple random* oder *stratified random sampling* durchgeführt. Weit wichtiger ist jedoch die Tatsache, dass das *sampling frame* in einer größeren Anzahl empirischer Studien der Mitgliederdatenbank des *Institute of Supply Management* (US) entspricht. Insofern ist es auch nicht weiter verwunderlich, dass die Fragebögen zum überwiegenden Teil von (hochrangigen) Direktoren bzw. Managern der Einkaufsabteilung beantwortet wurden und primär auf eine *single (key) informant approach* rekurrieren.³²

Empfehlung 6: In Zukunft sollte durch die Befragung von mehreren unabhängigen Informanten Erkenntnisse erzielt und die Güte der Untersuchungen signifikant verbes-

³⁰ Ähnliche Befunde sind auch aus einem Review zur Marketing-Forschung (vgl. Rindfleisch, A. et al., *Survey Research*, 2008, S. 261-279) oder aus einem Review zu Zulieferer-Abnehmer-Beziehungen (vgl. Terpend, R. et al., *Buyer-Supplier Relationships*, 2008, S. 28-55) bekannt.

³¹ Kleinere Unternehmen wurden u. a. bei David, J. S. et al., *Congruence*, 2002, S. 884 und Foerstl, K. et al., *Integration*, 2013, S. 709 per se ausgeschlossen, während Su, J.; Gargeya, V. B., *Sourcing*, 2012b, S. 160 f. ausschließlich kleine und mittlere Unternehmen befragten. Allerdings konnte lediglich CARR/PEARSON (1999) und das Sample aufspalten, um die Effekte der Unternehmensgröße im Detail zu erforschen. Die dortigen Befunde bezüglich des Einflusses der Unternehmensgröße auf den Zusammenhang zwischen *strategic purchasing* und der *financial performance* sind allerdings widersprüchlich. Insofern sollten zukünftige Studien durch einen höheren Stichprobenumfang sowie einer Replikation der Untersuchung die Validität der Aussagen verbessern können.

³² Lediglich die Studien von PAGELL/KRAUSE (2002) und CARR/SMELTZER (1999b) stellen diesbezüglich eine Ausnahme dar, indem sowohl Verantwortliche aus der Beschaffung als auch Mitarbeiter der Produktion konsultiert wurden.

Die mit der *single (key) informant Befragung* verbundenen Problem wurden bereits ausführlich in der Literatur diskutiert (vgl. Phillips, L. W., *Key Informant Reports*, 1981, S. 395-415; Spector, P. E., *Method Variance*, 2006, S. 221-232; Podsakoff, P. M. et al., *Biases*, 2003, S. 879-903).

sert werden.³³ Zudem sind Umfragen angeraten, deren Unternehmensauswahl nicht per definitionem auf der oben genannten Mitgliederdatenbank fußt.

Sample Size and Effective Response Rates

Die Analyse zeigt, dass die Stichprobengröße der empirischen Studien relativ stark zwischen 89 und 825 variiert³⁴ und auch eine hohe prozentuale Schwankungsbreite³⁵ von 7,3 % bis 43,2 % in den Rücklaufquoten zu konstatieren ist. Allerdings führen kleine Samples oder niedrige Rücklaufquoten nicht per se zu schlechteren Ergebnissen, wenn gleich das grundsätzlich einsetzbare statistische Instrumentarium ggf. begrenzt wird.³⁶

Empfehlung 7: In Zukunft sollten Erkenntnisse der Literatur zur Verbesserung der Stichprobengröße und Rücklaufquote noch konsequenter berücksichtigt werden.³⁷

Used Theories

Während 19 empirische Studien dezidiert einen theoretischen Bezug herstellen, verwenden 10 Texte keine theoretische Grundlage. Interessanterweise ziehen 6 der 19 Texte mehr als eine Theorie heran, wobei eine Überprüfung nicht belegen konnte, dass in *single-theory* Studien die theoretische Fundierung wesentlich tiefergehend als in *multi-theory* Texte erfolgt. Darüber hinaus berücksichtigen Wissenschaftler zwar ein relativ breites Set an theoretischen Strömungen, der Resource-Based View incl. Relational View (9) und die Social Network Theory (3) dominieren hierbei jedoch sehr stark.

Empfehlung 8: Künftig sollten die Hypothesen und Konstrukte noch stärker mit den entsprechenden theoretischen Überlegungen verknüpft werden, wobei eine weitere Diversifizierung der verwendeten Theorie neue interessante Erkenntnisse verspricht.³⁸

Statistical Techniques of Analysis

Die Ergebnisse der Analyse zur Nutzung der statistischen Verfahren sind in Darstellung 4 (verfahrens-orientiert) und Anlage 2 (autoren-orientiert) zusammengefasst. Grundsätzlich wurden in den 29 Studien Verfahren der deskriptiven Statistik herangezogen. Als

³³ Die Empfehlungen zur *multi-informant approach* von WAGNER/ RAU/ LINDEMANN (2010) stellen einen exzellenten Ausgangspunkt zur Anwendung dieser Technik dar.

³⁴ Vgl. Goh, M.; Lau, G. T.; Neo, L., *Role*, 1999, S. 12-23; Schoenherr, T.; Mabert, V. A., *Performance*, 2011, S. 214-234.

³⁵ Vgl. Chiang, C. Y. et al., *Agility*, 2012, S. 49-78; González-Benito, J., *Business Performance*, 2010, S. 774-797.

³⁶ Wesentlich wichtiger ist im Falle kleiner Samples oder niedriger Rücklaufquoten, dass sich die Wissenschaftler den damit verbundenen Anforderungen und Risiken bewusst sind (vgl. De Beuckelaer, A.; Wagner, S. M., *Surveys*, 2012, S. 619).

³⁷ Vgl. Shi, M.; Yu, W., *Review*, 2013, S. 1287; Melnyk, S. A. et al., *Survey*, 2012, S. 35-45; Larson, P. D., *Mail Surveys*, 2005, S. 211-222. Zur Erhöhung von Antwortquoten sollten nach MELNYK ET AL. (2012) die Stellenschrauben *number of questions*, *source of survey population*, *method of survey delivery*, *specific respondents targeted*, *use of prequalification* und *pre-notification* berücksichtigt werden.

³⁸ Die Theorie-Reviews von KETCHEN/ HULT (2007), DEFEE ET AL. (2010), HALLDORSSON ET AL. (2007), SHOOK ET AL. (2009) und CHICKSAND ET AL. (2012) bilden einen exzellenten Ausgangspunkt für eine stärkere theoretische Fundierung.

wichtigste Instrumente für die Überprüfung der zentralen Hypothesen-Tests wurden (konfirmative) Faktoranalysen sowie Regressionsanalysen³⁹ und Strukturgleichungsmodelle⁴⁰ eingesetzt. Gerade Strukturgleichungsmodelle können durch die simultane Abbildung komplexer Relationen zwischen unabhängigen und abhängigen Variablen einen wichtigen Beitrag zum besseren Verständnis der Strategie-Alignment-Performance-Relation leisten.⁴¹

Empfehlung 9: In Zukunft sollten die methodischen Verbesserungsvorschläge für die zunehmend wichtigeren Strukturgleichungsmodelle noch stärkere Berücksichtigung finden.⁴²

<i>Method</i>	<i>Author(s) (Year)</i>	<i>No.</i>	<i>%</i>
Regression Analysis	BAIER ET AL. (2008); CARR/ SMELTZER (1999b); DAS/ NARASIMHAN (2000); DAVID ET AL. (2002); GONZÁLEZ-BENITO (2007, 2010); NARASIMHAN/ DAS (2001); NARASIMHAN ET AL. (2001); PAGELL/ KRAUSE (2002); PAULRAJ/ CHEN (2005a); SCHOENHERR/ MABERT (2011)	11	37,9 %
T-Test	BERNARDES (2010); BERNARDES/ ZSIDISIN (2008); CARR/ PEARSON (1999, 2002); CHEN/ PAULRAJ/ LADO (2004); CHIANG ET AL. (2012); COUSINS ET AL. (2006); GONZÁLEZ-BENITO (2007); KERN ET AL. (2011); LAWSON ET AL. (2009); NARASIMHAN ET AL. (2001); PAGELL/ KRAUSE (2002); PAULRAJ/ CHEN (2005b, 2007); PAULRAJ ET AL. (2006); SCHOENHERR/ MABERT (2011); SU (2013); SU/ GARGEYA (2012b)	18	62,1 %
Chi-Square Analysis	GOH/ LAU/ NEO (1999); CARR/ PEARSON (2002); CHEN/ PAULRAJ/ LADO (2004); GONZÁLEZ-BENITO (2007); KERN ET AL. (2011); LAWSON ET AL. (2009); NARASIMHAN ET AL. (2001); PAULRAJ ET AL. (2006); SÁNCHEZ-RODRÍGUEZ (2009); SU/ GARGEYA (2012b)	10	34,5 %
Multivariate Analysis of Variance	CARR/ PEARSON (1999)	1	3,4 %
Analysis of Variance	CARR/ PEARSON (1999, 2002); CARR/ SMELTZER (1999b); COUSINS ET AL. (2006); DAS/ NARASIMHAN (2000); GONZÁLEZ-BENITO (2007); NARASIMHAN/ DAS (2001); PAULRAJ ET AL. (2006); SÁNCHEZ-RODRÍGUEZ (2009); SCHOENHERR/ MABERT (2011)	10	34,5 %
Analysis of Covariance	SCHOENHERR/ MABERT (2011)	1	3,4 %
Correlation Analysis	CARR/ PEARSON (1999); CARR/ SMELTZER (1999b); GOH/ LAU/ NEO (1999); GONZÁLEZ-BENITO (2010); KERN ET AL. (2011); SÁNCHEZ-RODRÍGUEZ (2009)	6	20,7 %
Structural Equation Modeling	BERNARDES (2010); BERNARDES/ ZSIDISIN (2008); CARR/ PEARSON (1999, 2002); CHEN/ PAULRAJ/ LADO (2004); CHIANG ET AL. (2012); DAS/ NARASIMHAN (2000); FOERSTL ET AL. (2013); GONZÁLEZ-BENITO (2007); LAWSON ET AL. (2009); NARASIMHAN ET AL. (2001); PAULRAJ/ CHEN (2005b, 2007); SÁNCHEZ-RODRÍGUEZ (2009); SHAO ET AL. (2012); SU (2013); SU/ GARGEYA (2012b)	17	58,6 %

³⁹ Mittels *Regressionsanalysen* können Beziehungen zwischen einer abhängigen und einer oder mehreren unabhängigen Variablen mit dem Ziel einer möglichst genauen Vorhersage über die erklärte Varianz der erklärten Variable(n) modelliert werden. Folgende Varianten dieses Auswertungsverfahrens wurden herangezogen: Einfache Regressionsanalyse (CARR/ SMELTZER 1999b, GONZÁLEZ-BENITO 2007), multiple (lineare) Regression (GONZÁLEZ-BENITO 2010), hierarchische Regression (PAGELL/ KRAUSE 2002), moderierte Regressionen (GONZÁLEZ-BENITO 2007) sowie logistische Regression (SCHOENHERR/ MABERT 2011).

⁴⁰ An dieser Stelle soll nun hervorgehoben werden, dass die statistischen Softwarepakete SPSS, LISREL, AMOS, SmartPLS und PLS-Graph in der Regel und insbesondere zur Analyse von Strukturgleichungsmodellen verwendet werden.

⁴¹ Vgl. hierzu v. a. Anderson, J. C.; Gerbing, D. W., Approach, 1988, S. 411-423.

⁴² Die SEM-Reviews von HAIR ET AL. (2012) und SHAH/ GOLDSTEIN (2006) bilden einen exzellenten Ausgangspunkt für eine methodische Weiterentwicklung.

Partial Least Squares	CHIANG ET AL. (2012); FOERSTL ET AL. (2013); SHAO ET AL. (2012)	3	10,3 %
Factor Analysis	BAIER ET AL. (2008); BERNARDES (2010); BERNARDES/ ZSIDISIN (2008); CARR/ PEARSON (1999, 2002); CARR/ SMELTZER (1999b); CHEN/ PAULRAJ/ LADO (2004); COUSINS ET AL. (2006); DAS/ NARASIMHAN (2000); FOERSTL ET AL. (2013); GOH/ LAU/ NEO (1999); GONZÁLEZ-BENITO (2007, 2010); KERN ET AL. (2011); LAWSON ET AL. (2009); NARASIMHAN/ DAS (2001); NARASIMHAN ET AL. (2001); PAULRAJ/ CHEN (2005b, 2007); PAULRAJ ET AL. (2006); SÁNCHEZ-RODRÍGUEZ (2009); SCHOENHERR/ MABERT (2011); SHAO ET AL. (2012); SU (2013); SU/ GARGEYA (2012b)	25	86,2 %
Cluster Analysis	COUSINS ET AL. (2006); SCHOENHERR/ MABERT (2011)	2	6,9 %
Descriptive Analysis	Used in all articles	29	100 %

Darstellung 4: Analyse des eingesetzten statistischen Instrumentariums

Auf Grundlage der Analyse der methodischen Variablen konnten einige interessante Empfehlungen abgeleitet werden. Darüber hinausgehend lässt sich zudem konstatieren, dass die empirischen Studien auch im Rahmen einer Meta-Analyse zusammengeführt und damit integrativ betrachtet werden könnten.⁴³ Außerdem würden einfache Replikationsstudien bzw. Re-Tests wertvolle Erkenntnisse liefern, da die 29 Studien doch sehr unterschiedliche Forschungsdesigns aufweisen und immer neue Konstrukte oder Relationen erforschen. Abschließend sei auch mit Nachdruck darauf verwiesen, dass eine wesentlich präzisere Präsentation der methodischen Daten notwendig ist.⁴⁴

3 Buying Firm's Strategie-Alignment (unabhängige Variable)

3.1 Konzeptionelles Framework zur Analyse der Strategie-Alignment-Dimensionen

Kapitel 3 definiert die wesentlichen Strategie-Begriffe und fasst die strategisch-analytischen Bezugspunkte in einem Framework zusammen. Da die einzelnen Konstrukte der unabhängigen Variablen in Ihrer Bezeichnung und Definition sowie hinsichtlich der verwendeten Messgrößen und ihrer Operationalisierung doch stark variiere-

⁴³ Vgl. Zimmermann, F.; Foerstl, K., Meta-Analysis, 2014, S. 1-34; Leuschner, R.; Rogers, D. S.; Charvet, F. F., Meta-Analysis, 2013, S. 34-57; Delbufalo, E., Trust, 2012, S. 377-402 und für weiterführende Informationen zur Meta-Analyse siehe Glass, G. V., Meta-Analysis, 1976, S. 3; Hunter, J. E.; Schmidt, F. L., Meta-Analysis, 2004; Hunter, J. E., Need, 2001, S. 149-158.

⁴⁴ Vgl. Wagner, S. M.; Kemmerling, R., Research, 2010, S. 357-381. In diesem Zusammenhang sei zudem auf die grundlegenden Informationen verwiesen, die jede empirische PSM-Studie umfassen sollte: 1) *Time period survey was administered*, 2) *method(s) of survey delivery*, 3) *types of incentives offered*, 4) *types of support used*, 5) *extent to which existing questions/instruments/scales were used*, 6) *total number of questions/number of questions used in the analysis*, 7) *sampling strategy*, 8) *source of survey data*, 9) *if and how the sample was pre-qualified and pre-notified*, 10) *extent of multiple waves and follow-up*, 11) *number of questions/time needed*, 12) *time given for the respondent to return the survey*, 13) *number of people asked to participate, and if multiple respondents were targeted* und 14) *an explicit description of the method used in calculating the response rate* (vgl. Melnyk, S. A. et al., Survey, 2012, S. 44).

ren, werden die englischsprachigen Bezeichnungen zur Vermeidung von Missverständnissen unverändert übernommen und zudem durch *Kursiv-Schrift* kenntlich gemacht.⁴⁵

Die **Unternehmensstrategie** (*corporate strategy*) legt die übergeordnete Ausrichtung fest und determiniert sowohl das Geschäftsfeld als auch die relevanten Absatzmärkte. Darauf aufbauend können Entscheidungen zur Allokation von Ressourcen auf die strategischen Geschäftseinheiten getroffen und **Geschäftsbereichsstrategien** (*business strategies*) entwickelt werden, indem die adäquaten wettbewerbsbezogenen Maßnahmen in den einzelnen Marktsegmenten und für das jeweilige Produktportfolio definiert werden.⁴⁶ **Funktionsbereichsstrategien** konkretisieren demgegenüber die Ziele und Maßnahmenbündel unterschiedlicher Abteilungen (z. B. Forschung und Entwicklung, Beschaffung, Produktion, Marketing). Zur Erreichung einer konsistenten Verbindung werden diese aus den übergeordneten Strategien abgeleitet.⁴⁷ Denn je stärker die Kongruenz in den Zielen und strategischen Vorgaben auf den unterschiedlichen Ebenen, desto größer fallen c.p. positive Effekte auf die Performance aus.

Wie Darstellung 5 visualisiert, lässt sich das Strategie-Alignment im PSM grundsätzlich in drei konkrete Dimensionen und Handlungsfelder differenzieren. Die *vertikale Alignment-Dimension* betrachtet die Abstimmung und Verknüpfung von Beschaffungsstrategien, -funktionsbereichszielen und -maßnahmen mit der übergeordneten Unternehmens-, Geschäftsbereichs- oder Wettbewerbsstrategie.⁴⁸ Cross-funktionale Abstimmungsmechanismen von Beschaffungsstrategien und -zielen mit anderen Funktionsbereichszielen und -strategien werden hingegen als *horizontales Alignment* bezeichnet und betreffen (wechselseitige) Interaktionsprozesse und -aktivitäten zwischen der Beschaffung und anderen funktionalen Abteilungen (z. B. Forschung und Entwicklung, Finanzen, Personal, Marketing und Produktion).⁴⁹ Maßnahmen zur gemeinsamen Definition

⁴⁵ Dass Konstrukte trotz identischer Bezeichnung in der Definition und Operationalisierung stark variieren können, zeigt folgendes Beispiel: BERNARDES/ ZSIDISIN (2008) und BERNARDES (2010) operationalisieren die Konstrukte *strategic supply management* und *strategic purchasing* trotz unterschiedlicher Bezeichnung mit denselben Variablen und Messgrößen, während PAULRAJ/ CHEN (2005a, 2007) das gleichnamige Konstrukt *strategic supply management* mit komplett divergierenden Sub-Konstrukten und Variablen operationalisieren und strukturieren.

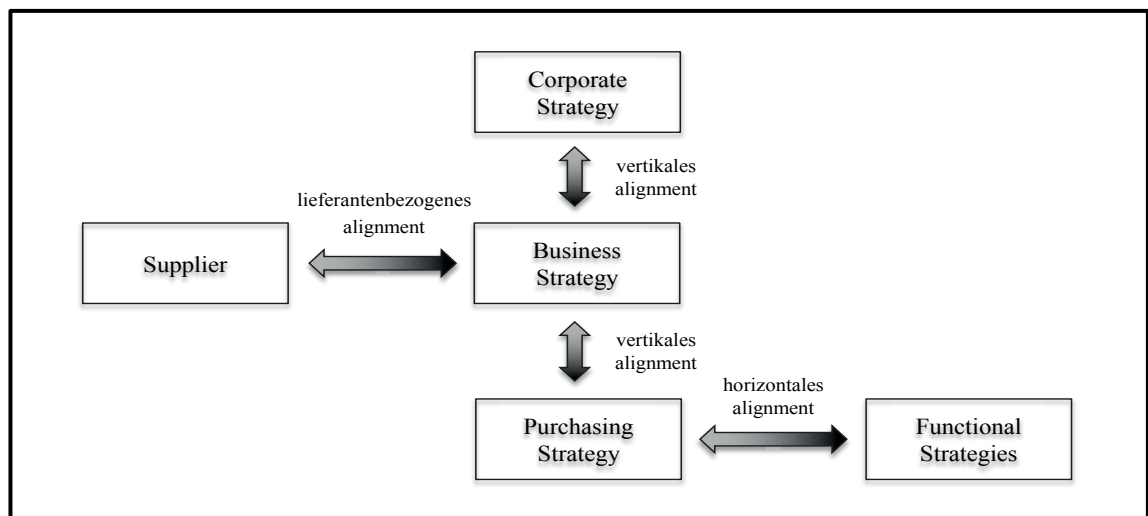
⁴⁶ Vgl. Andrews, K. R., *Corporate Strategy*, 1997, S. 52; Christensen, C. et al., *Business*, 1982; Wheelwright, S. C., *Strategy*, 1984, S. 82 f.; Porter, M. E., *Competitive Forces*, 1979, S. 137-145.

⁴⁷ Vgl. Watts, C. A.; Kim, K. Y.; Hahn, C. K., *Purchasing*, 1995, S. 5; Rendon, R. G., *Sourcing*, 2005, S. 8.

⁴⁸ Vgl. Baier, C.; Hartmann, E.; Moser, R., *Alignment*, 2008, S. 36; Nollet, J.; Ponce, S.; Campbell, M., *Supply Management*, 2005, S. 129-140; Day, M.; Lichtenstein, S., *Strategic Supply Management*, 2006, S. 313-321; Farmer, D., *Strategies*, 1981, S. 114-121; Watts, C. A.; Kim, K. Y.; Hahn, C. K., *Purchasing*, 1995, S. 2-8.

⁴⁹ Vgl. Narasimhan, R.; Das, A., *Performance*, 2001, S. 593-609; Pagell, M., *Integration*, 2004, S. 459-487; Pagell, M.; Krause, D. R., *Consensus*, 2002, S. 3075-3092; van Echtelt, F. E.; Wynstra, F.; van Weele, A. J., *Development*, 2007, S. 644-661; Rebolledo, C.; Jobin, M. H., *Manufacturing*,

von Zielen, Abstimmung der Strategien, Harmonisierung der Planungsprozesse und Intensivierung der Kommunikation zwischen Zulieferer und Abnehmer werden unter der *lieferantenbezogenen Alignment-Dimension* subsumiert.



Darstellung 5: Konzeptionelles Framework der Strategie-Alignment-Dimensionen⁵⁰

3.2 Analyse der Strategie-Alignment-Konstrukte

Folgende Darstellung 6 visualisiert die autoren-spezifische Auswertung der *Strategie-Alignment-Konstrukte*, welche in den empirischen Studien sehr unterschiedlich konzeptualisiert wurden (vgl. auch Anlage 3). Aufgrund dieser Inhomogenität wurde daher zunächst die relativ breite Kategorisierung der Darstellung 5 herangezogen, um dann darauf aufbauend weitere Alignment-Cluster von verwandten Studien zu identifizieren.

<i>Author(s) (Year)</i>	<i>Alignment-Dimensionen und Konstrukte</i>
BAIER ET AL. (2008)	(HA integrativ)/ VA (Gruppe 2 purchasing competence)
BERNARDES (2010)	VA (Gruppe 1 strategic purchasing)
BERNARDES/ ZSIDISIN (2008)	VA (Gruppe 1 strategic purchasing)
CARR/ PEARSON (1999)	LA/ VA (Gruppe 1 strategic purchasing)
CARR/ PEARSON (2002)	HA/ LA integrativ/ (VA Gruppe 1 strategic purchasing)
CARR/ SMELTZER (1999b)	VA (Gruppe 1 strategic purchasing)
CHEN ET AL. (2004)	VA (Gruppe 1 strategic purchasing)
CHIANG ET AL. (2012)	Sonder-Konstrukt (HA/ VA Gruppe 1 strategic purchasing integrativ)

2013, S. 219-226; Foerstl, K. et al., Integration, 2013, S. 689-721; Hill, T., Manufacturing Strategy, 2000; Prabhaker, P. R.; Goldhar, J. D.; Lei, D., Marketing, 1995, S. 48-58; Kathuria, R.; Joshi, M. P.; Porth, S. J., Alignment, 2007, S. 503-517; Menda, R.; Dilts, D., Strategy Formulation, 1997, S. 223-241; Pearson, J. N.; Ellram, L. M.; Carter, C., Purchasing, 1996, S. 30-36; Carr, A. S.; Smeltzer, L. R., Strategic Purchasing, 1997, S. 199-207; Narasimhan, R. et al., Examination, 2001, S. 1-15; Trent, R. J.; Monczka, R. M., Global Sourcing, 2003, S. 607-629; Day, M.; Lichtenstein, S., Strategic Supply Management, 2006, S. 313-321; Carter, J. R.; Narasimhan, R., Purchasing, 1996, S. 20-28; Chiang, C. Y. et al., Agility, 2012, S. 69.

⁵⁰ In Anlehnung an González-Benito, J., Business Performance, 2007, S. 903; Leong, G. K.; Snyder, D. L.; Ward, P. T., Research, 1990, S. 111; Watts, C. A.; Kim, K. Y.; Hahn, C. K., Purchasing, 1995, S. 7; Weir, K. A. et al., Alignment, 2000, S. 833.

COUSINS ET AL. (2006)	Sonder-Konstrukt (HA integrativ)
DAS/ NARASIMHAN (2000)	(HA integrativ)/ VA (Gruppe 2 purchasing competence)
DAVID ET AL. (2002)	Sonder-Konstrukt
FOERSTL ET AL. (2013)	HA
GOH/ LAU/ NEO (1999)	HA
GONZÁLEZ-BENITO (2007)	VA (Gruppe 2 purchasing competence)
GONZÁLEZ-BENITO (2010)	Sonder-Konstrukt
KERN ET AL. (2011)	(HA/ LA integrativ)/ VA (Gruppe 2 purchasing competence)
LAWSON ET AL. (2009)	HA/ LA mediating/ VA (Gruppe 1 strategic purchasing)
NARASIMHAN/ DAS (2001)	(HA integrativ)/ VA (Gruppe 1 purchasing integration)
NARASIMHAN ET AL. (2001)	(HA/ LA integrativ)
PAGELL/ KRAUSE (2002)	HA
PAULRAJ/ CHEN (2005a)	VA (Gruppe 3 strategic supply management)
PAULRAJ/ CHEN (2005b)	VA (Gruppe 1 strategic purchasing)
PAULRAJ/ CHEN (2007)	(HA/ LA integrativ)/ VA (Gruppe 3 strategic supply management)
PAULRAJ ET AL. (2006)	VA (Gruppe 1 strategic purchasing)
SÁNCHEZ-RODRÍGUEZ (2009)	VA (Gruppe 1 strategic purchasing)
SCHOENHERR/ MABERT (2011)	Sonder-Konstrukt
SHAO ET AL. (2012)	LA
SU (2013)	LA/ VA (Gruppe 1 strategic purchasing)
SU/ GARGEYA (2012b)	(HA integrativ)/ VA (Gruppe 1 strategic purchasing)

Legende: Vertikales Alignment (VA); Horizontales Alignment (HA); Lieferantenbezogenes Alignment (LA)

Darstellung 6: Analyse der Strategie-Alignment-Konstrukte

Horizontale Strategie-Alignment-Dimension

Wie Darstellung 6 zeigt, adressieren lediglich 3 empirische Studien schwerpunktmäßig das horizontale Alignment (vgl. hierzu auch Anlage 3).⁵¹ Allerdings werden cross-funktionale Abstimmungsmaßnahmen in 11 weiteren empirischen Studien integrativ thematisiert.⁵²

PAGELL/ KRAUSE (2002) untersuchten den *strategic consensus*, d. h. die funktionsübergreifende Übereinstimmung bzgl. der strategischen Prioritäten zwischen PSM und Produktion, und den *internal fit* (das Alignment von Funktionsbereichsstrategien mit der übergeordneten Wettbewerbsstrategie). FOERSTL ET AL. (2013) erfassten bereichsübergreifende Abstimmungsaktivitäten als *mediating construct* (zwischen *talent management/ performance management* und *purchasing performance*) und definierten *cross-functional integration* insgesamt wesentlich breiter als „*interaction and collabo-*

⁵¹ Vgl. FOERSTL ET AL. (2013); GOH/ LAU/ NEO (1999); PAGELL/ KRAUSE (2002).

⁵² Vgl. BAIER ET AL. (2008); CARR/ PEARSON (2002); CHIANG ET AL. (2012); COUSINS ET AL. (2006); DAS/ NARASIMHAN (2000); KERN ET AL. (2011); LAWSON ET AL. (2009); NARASIMHAN/ DAS (2001); NARASIMHAN ET AL. (2001); PAULRAJ/ CHEN (2007); SU/ GARGEYA (2012b).

ration of the PSM function with other functions, such as product development, production and manufacturing, and marketing".⁵³ GOH/ LAU/ NEO (1999) erstellten ebenfalls ein horizontales Alignment-Konstrukt namens *purchasing's integration with other functions*, welches die Funktionsbereiche *legal, research and development, advertising/marketing, engineering* und *accounting/finance* betrifft.⁵⁴

Neben den angeführten 3 empirischen Studien gibt es noch eine Reihe weiterer Texte, die horizontale Abstimmungsmechanismen als Teilbereich (*sub-constructs/ variables/ items*) eines *integrativen Konstrukts* erfassen und zusammen mit der vertikalen und/oder lieferantenbezogenen Alignment-Dimensionen verbinden. So berücksichtigten NARASIMHAN ET AL. (2001) den Austausch mit unterschiedlichen Funktionsbereichen (*purchasing's interaction with production, quality control, with engineering* und *research and development*) und erfassten dies als eine von mehreren konkreten Maßnahmen in einem integrativen *purchasing competence-Konstrukt*.⁵⁵ KERN ET AL. (2011) erstellten einen gleichnamigen *purchasing competence-Bezugsrahmen*, der u. a. in der Kategorie *PSM authority* (*internal perception, cross-functional integration* und *functional transparency*) horizontale Indikatoren enthält.⁵⁶ BAIER ET AL. (2008) verwendeten den Begriff *purchasing integration* (*PSM integration in the corporate planning process, PSM integration in the product development process, PSM integration in marketing and sales activities* und *PSM integration in mergers and acquisitions activities*) und operationalisierten diese horizontale Dimension als eine von mehreren *purchasing practices*.⁵⁷ SU/ GARGEYA (2012b) bezogen horizontale Interaktionsprozesse zwischen dem Einkauf und anderen Abteilungen (wie z. B. *manufacturing, marketing*) ebenfalls als eine von drei Kennzahlen in ihr *strategic sourcing-Konstrukt* mit ein.⁵⁸ CHIANG ET AL. (2012) operationalisierten die *internal integration* als Bestandteil des übergeordneten *strategic sourcing-Konstrukts*.⁵⁹ COUSINS ET AL. (2006) identifizierten unterschiedliche *patterns of purchasing function configuration* und berücksichtigten hierfür u. a. ein *internal integration-Konstrukt*, welches zwar auch zwei ausgewählte Indikatoren zur horizontalen Partizipation im Rahmen des Produktentwicklungs-/ -designprozesses umfasst, ansons-

⁵³ Vgl. Foerstl, K. et al., *Integration*, 2013, S. 694 f.

⁵⁴ Vgl. Goh, M.; Lau, G. T.; Neo, L., *Role*, 1999, S. 19.

⁵⁵ Das *purchasing competence-Konstrukt* besteht aus insgesamt 15 unterschiedlichen Beschaffungspraktiken (vgl. Narasimhan, R. et al., *Examination*, 2001, S. 1-15).

⁵⁶ Vgl. Kern, D. et al., *Framework*, 2011, S. 126.

⁵⁷ Das *purchasing integration-Konstrukt* ist eine von insgesamt 10 *purchasing practices* (vgl. Baier, C.; Hartmann, E.; Moser, R., *Alignment*, 2008, S. 52).

⁵⁸ Vgl. Su, J.; Gargeya, V. B., *Sourcing*, 2012b, S. 153.

⁵⁹ *Internal integration* umfasst hier die drei Indikatoren 1) *there is frequent communication between purchasing and other departments within our firm*, 2) *purchasing personnel are included in concurrent engineering teams* und 3) *purchasing executives receive cross-functional training*.

ten allerdings komplett anders als das gleichnamige Konstrukt von CHIANG ET AL. (2012) operationalisiert wurde.⁶⁰ PAULRAJ/ CHEN (2007) zogen die Komponente *cross-organizational teams* zur Konzeptualisierung ihres *strategic supply management*-Konstrukts heran, welches neben lieferantenbezogenen Alignment-Aspekten ebenso ausgewählte horizontale Alignment-Indikatoren umfasst.⁶¹ DAS/ NARASIMHAN (2000) operationalisierten das *purchasing competence*-Konstrukt u. a. auch über die Komponente *purchasing integration*, welche zwei ausgewählte Indikatoren zur horizontalen Partizipation im Rahmen des Produktentwicklungs-/ -designprozesses beinhaltet.⁶² NARASIMHAN/ DAS (2001) arbeiteten ebenfalls mit dem *purchasing integration*-Konstrukt, welches in seiner Operationalisierung nur minimal von der zuvor genannten Studie abweicht und ebenfalls zwei ausgewählte horizontale Alignment-Indikatoren enthält.⁶³ CARR/ PEARSON (2002) erstellten ein integratives *purchasing/ supplier involvement*-Konstrukt, das sowohl lieferantenbezogene als auch horizontale Alignment-Aspekte umfasst.⁶⁴ LAWSON ET AL. (2009) operationalisierten ein mediiertes *socialization mechanisms*-Konstrukt, welches die horizontalen Alignment-Indikatoren *cross-functional teams, joint workshops* und *co-location* umfasst.

Lieferantenbezogene Strategie-Alignment-Dimension

Wie Darstellung 6 zeigt, adressieren 8 empirische Studien⁶⁵ Fragen des lieferantenbezogenen Ziel- und Strategie-Alignments (vgl. hierzu Anlage 3), wobei die Publikationen

⁶⁰ *Internal integration* wird über die Indikatoren 1) *purchasing regularly attends strategy meetings*, 2) *purchasing recommends and initiates changes in end products and inputs, based on supply market analysis*, 3) *a high proportion of purchasing personnel spend time in market and price/cost analysis*, 4) *purchasing participates in new product design*, 5) *purchasing participates in process design and improvement* und 6) *purchasing is measured on strategic contributions to the company (e.g. new products/technologies), versus cost and efficiency contributions* operationalisiert.

⁶¹ *Cross-organizational teams* wird über die Indikatoren 1) *we collocate employees to facilitate cross-functional integration*, 2) *we coordinate joint planning committees with our suppliers*, 3) *we promote task force teams with our suppliers*, 4) *we share ideas and information with our supplier through cross-functional teams*, 5) *we use supplier involved ad hoc teams based on our strategic objectives* und 6) *we encourage teamwork between our suppliers and us* erfasst.

⁶² *Purchasing integration* wird durch die Indikatoren 1) *Purchasing attends corporate meetings*, 2) *Purchasing impacts end-product changes*, 3) *Purchasing focus on market/ price analysis*, 4) *Purchasing participates in new product development*, 5) *Purchasing participates in process design* und 6) *Purchasing measured on strategic metrics* abgebildet.

⁶³ *Purchasing integration* wird über die Indikatoren 1) *Recommends and impacts changes in end products and inputs, based on supply markets analysis*, 2) *Primarily spend time in market and price/ cost analysis*, 3) *Participates in new product design*, 4) *Participates in process design and improvement* und 5) *Is measured/ rewarded on strategic contributions to the company* erfasst.

⁶⁴ *Purchasing/ supplier involvement* wird über die Indikatoren 1) *Key suppliers are involved in the design process of our products*, 2) *Purchasing develops innovative strategies to support new product development*, 3) *Purchasing is involved in new product development*, 4) *Purchasing participates on cross-functional teams* und 5) *Our key suppliers are involved in our strategic planning process* gemessen.

⁶⁵ Vgl. CARR/ PEARSON (1999, 2002); KERN ET AL. (2011); LAWSON ET AL. (2009); NARASIMHAN ET AL. (2001); PAULRAJ/ CHEN (2007); SHAO ET AL. (2012); SU (2013).

den Lieferanteneinbezug in die strategische Planung wiederum sehr unterschiedlich operationalisierten.

CARR/ PEARSON (1999) sowie SU (2013) konzeptionalisierten den Lieferanteneinbezug in einem intermediären *buyer-supplier relationship* Konstrukt.⁶⁶ CARR/ PEARSON (2002) erstellten hingegen, wie bereits im vorherigen Absatz dargestellt, ein integratives Konstrukt *purchasing/ supplier involvement*, das sowohl lieferantenbezogene als auch horizontale Alignment-Aspekte beinhaltet. Das integrative *purchasing competence*-Konstrukt von NARASIMHAN ET AL. (2001) umfasst dabei auch den lieferantenbezogenen Alignment-Indikator *training for suppliers in quality and customer satisfaction* sowie das lieferantenbezogene Alignment-(Sub-)Konstrukt *buyer-seller relationship management* mit vier weiteren Indikatoren.⁶⁷ KERN ET AL. (2011) berücksichtigten in Ihrem *purchasing competence*-Konstrukt neben oben angeführten horizontalen Measures auch lieferantenbezogene Indikatoren in der Kategorie *Suppliers*.⁶⁸ LAWSON ET AL. (2009) erfassten das lieferantenbezogene Alignment als mediiierendes *supplier integration*-Konstrukt.⁶⁹ PAULRAJ/ CHEN (2007) zogen zur Konzeptualisierung des übergeordneten *strategic supply management*-Konstrukts die lieferantenbezogenen Alignment-Komponenten *long-term relationship orientation*, *inter-firm communication* und *supplier integration* heran.⁷⁰ SHAO ET AL. (2012) erfassten das Alignment ebenfalls über eine

⁶⁶ CARR/ PEARSON (1999) erfassen das *buyer-supplier relationships*-Konstrukt über die Indikatoren 1) *We enter into special agreements with suppliers who have improved performance*, 2) *We are loyal to key suppliers*, 3) *We have very frequent face-to-face planning/ communication with key suppliers*, 4) *There is high corporate level communication on important issues with key supplier*, 5) *There are direct computer to computer links with key suppliers* und 6) *Purchasing can influence first tier supplier's responsiveness to purchasing requirements*, während SU (2013) das *buyer-supplier relationship*-Konstrukt über die Indikatoren 1) *We are loyal to key suppliers*, 2) *We have very frequent face-to face planning meetings or communications with key suppliers*, 3) *There is high corporate level communication on important issues with key suppliers* und 4) *Sourcing can influence key supplier's responsiveness to the purchasing requirement* operationalisiert.

⁶⁷ Das *purchasing competence*-Konstrukt von NARASIMHAN ET AL. (2001) besteht aus insgesamt 15 unterschiedlichen Beschaffungspraktiken. Das *buyer-seller relationship management*-(Sub-)Konstrukt umfasst die vier Indikatoren *risk sharing for capital investment with suppliers*, *technical assistance and information sharing with suppliers*, *joint production planning with suppliers* und *sharing of cost savings with suppliers*.

⁶⁸ Vgl. Kern, D. et al., Framework, 2011, S. 126. Relevant sind in diesem Kontext insbesondere die Indikatoren *buyer-supplier relationship management* als auch *supply base strategy*.

⁶⁹ Das *supplier integration*-Konstrukt von LAWSON ET AL. (2009) umfasst die Indikatoren 1) *the level of strategic partnership with suppliers*, 2) *the participation level of suppliers in the design stage*, 3) *the participation level of suppliers in the process of procurement and production* und 4) *the establishment of a quick ordering system*.

⁷⁰ Das *long-term relationship orientation*-Konstrukt besteht aus den Indikatoren 1) *We expect our relationship with key suppliers to last a long time*, 2) *We work with key suppliers to improve their quality in the long run*, 3) *The suppliers see our relationship as a long-term alliance*, 4) *We view our suppliers as an extension of our company*, 5) *We give a fair profit share to key suppliers* und 6) *The relationship we have with key suppliers is essentially evergreen*.

Das *inter-firm communication*-Konstrukt umfasst die Indikatoren 1) *We share sensitive information (financial, production, design, research, and/or competition)*, 2) *Suppliers are provided*

engere Abstimmung von Zielen und Strategien zwischen Zulieferer und Abnehmer, welche durch *objective alignment* und *activity alignment* operationalisiert wurde.⁷¹

Vertikale Strategie-Alignment-Dimension

Wie Darstellung 6 zeigt, fokussieren 23 der empirischen Studien explizit Fragen der vertikalen Abstimmung (vgl. hierzu auch Anlage 3), wobei sich die Arbeiten noch tiefergehender unterscheiden lassen.⁷²

- **Gruppe 1** misst der strategischen Ausrichtung des Einkaufs durch eine Verbindung zu übergeordneten Strategien und strategischen Plänen eine zentrale Bedeutung bei.⁷³ Dabei betonen die *strategic purchasing/ purchasing integration*-Konstrukte den langfristigen Planungshorizont von Beschaffungsaktivitäten, die Einbeziehung des Einkaufs in den strategischen Planungsprozess der Unternehmensführung, die regelmäßige Überprüfung der getroffenen strategischen Entscheidungen und die kontinuierliche Anpassung an Veränderungen und überprüfen, inwiefern die Beschaffung von der Unternehmensleitung per se als strategisch relevant wahrgenommen wird.
- **Gruppe 2** untersucht mit dem Konstrukt *purchasing competence* die Abstimmung und Verbindung einzelner strategischer Beschaffungsmaßnahmen mit übergeordneten Strategie-Konstrukten.
- **Gruppe 3** betrachtet *strategic purchasing* als essentiellen und integralen Bestandteil des umfassenden *strategic supply management*-Konstrukts.

with any information that might help them, 3) Exchange of information takes place frequently, informally and/or in a timely manner, 4) We keep each other informed about events or changes that may affect the other party, 5) We have frequent face-to-face planning/communication und 6) We exchange performance feedback.

Das *supplier integration*-Konstrukt fußt auf den Indikatoren 1) *We involve key suppliers in the product design and development stage, 2) We have key supplier membership/participation in our project teams, 3) Our key suppliers have major influence on the design of new products, 4) There is a strong consensus in our firm that supplier involvement is needed in product design/development, 5) We involve our key suppliers in business and strategy planning und 6) We have joint planning committees/task forces on key issues with key suppliers.*

⁷¹ Das (in diesem SLR maßgebliche) *objective alignment*-Konstrukt umfasst die Indikatoren 1) *Alignment with strategic suppliers with respect to research and technology strategy, 2) Alignment with strategic suppliers with respect to logistics strategy, 3) Alignment with strategic suppliers with respect to operations strategy, 4) Alignment with strategic suppliers with respect to risk management strategy und 5) Alignment with strategic suppliers with respect to financing strategy*, während das *activity alignment*-Konstrukt die Indikatoren 1) *Our strategic suppliers provide good performance concerning delivery flexibility as required, 2) Our strategic suppliers provide good performance concerning short-term development and introduction of new products as required, 3) Our strategic suppliers provide good performance concerning short-term production volume change as required, 4) We cooperate extensively with our strategic suppliers concerning product and process improvement und 5) Our strategic suppliers provide good performance concerning corporate financing governance compliance as required* einschließt.

⁷² Vgl. BAIER ET AL. (2008); BERNARDES (2010); BERNARDES/ ZSIDISIN (2008); CARR/ PEARSON (1999, 2002); CARR/ SMELTZER (1999b); CHEN/ PAULRAJ/ LADO (2004); CHIANG ET AL. (2012); DAS/ NARASIMHAN (2000); DAVID ET AL. (2002); GONZÁLEZ-BENITO (2007, 2010); KERN ET AL. (2011); LAWSON ET AL. (2009); NARASIMHAN/ DAS (2001); PAULRAJ/ CHEN (2005a ,b, 2007); PAULRAJ ET AL. (2006); SÁNCHEZ-RODRÍGUEZ (2009); SCHOENHERR/ MABERT (2011); SU (2013); SU/ GARGEYA (2012b).

⁷³ Auch wenn sich die jeweils ausgewählten Variablen und Konstrukte doch teilweise erheblich unterscheiden, so lässt sich durch die Analyse in Anlage 3 belegen, dass viele Autoren in der Operationalisierung Ihrer Konstrukte auf die Arbeiten von CARR/ PEARSON (1999, 2002) rekurrieren.

Sonder-Konstrukte zum Strategie-Alignment

5 empirische Studien fokussieren das Strategie-Alignment anhand von sehr unterschiedlich operationalisierten und konzeptualisierten ***Sonder-Konstrukten***, so dass eine weitere Gruppierung der unabhängigen Variablen dieser Arbeiten nicht weiter möglich war (vgl. Darstellung 6).⁷⁴

Empfehlung 10: Die Analyse der Strategie-Alignment-Dimensionen zeigt deutlich auf, dass die Konstrukte der unabhängigen Variablen sehr stark variieren.⁷⁵ Insofern sollte in Zukunft gerade die Konzeptionalisierung und Operationalisierung der Konstrukte, Dimensionen und Messgrößen in Anzahl und Struktur diskutiert werden. Insbesondere sollten Fragen der *horizontalen (cross-funktionalen) Abstimmung*⁷⁶ und des *lieferanten-bezogenen Alignments*⁷⁷ wesentlich umfassender erforscht werden.

4 Buying Firm's Performance Outcomes (abhängige Variable)

4.1 Konzeptionelles Framework zur Analyse der Buying Firm's Performance Outcomes

Kapitel 4 definiert zunächst die wesentlichen Performance-Begriffe und fasst die analytischen Bezugspunkte in einem Framework zusammen. Da die einzelnen Konstrukte der abhängigen Variablen in Ihrer Bezeichnung und Definition sowie in der Messung und Operationalisierung der verwendeten Indikatoren sehr stark variieren, werden die englischsprachigen Bezeichnungen der Konstrukte zur Vermeidung von Missverständnissen unverändert übernommen und wiederum durch *Kursiv-Schrift* präventiv kenntlich gemacht. Außerdem wird das Analyseschema der Performance-Dimensionen und des Performance-Measurements der Darstellung 7 für die weitere Untersuchung zugrunde gelegt.⁷⁸

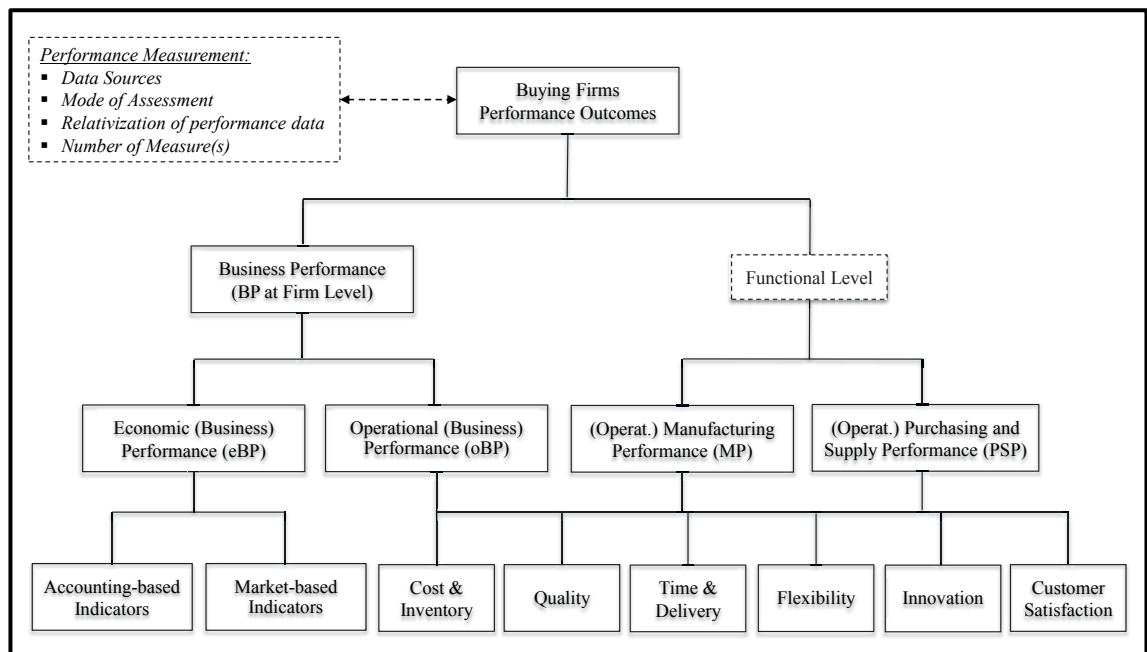
⁷⁴ Vgl. CHIANG ET AL. (2012); COUSINS ET AL. (2006); DAVID ET AL. (2002); GONZÁLEZ-BENITO (2010); SCHOENHERR/ MABERT (2011).

⁷⁵ So wird bspw. *strategic purchasing* in einigen Publikationen als eigenständiger Faktor erfasst, während dieses Konstrukt in anderen Studien lediglich als integrale Komponente neben mehreren (Sub-)Dimensionen aufgenommen wird.

⁷⁶ So betonen auch KATHURIA/ JOSHI/ PORTH (2007) und MENDA/ DILTS (1997), dass das horizontale Alignment bisher unzureichend erforscht ist (vgl. Kathuria, R.; Joshi, M. P.; Porth, S. J., Alignment, 2007, S. 503-517; Menda, R.; Dilts, D., Strategy Formulation, 1997, S. 223-241).

⁷⁷ So betonen auch VACHON/ HALLEY/ BEAULIEU (2009), dass das Supply Chain bzw. Buyer-Supplier-Alignment bisher unzureichend erforscht ist (vgl. Vachon, S.; Halley, A.; Beaulieu, M., Aligning, 2009, S. 323).

⁷⁸ Darstellung 7 darf allerdings nicht darüber hinweg täuschen, dass Performance-Konzepte und zugehörige Fragen der Performance-Messung sowohl in der Praxis als auch in empirischen Studien als sehr komplexe Problemstellungen zu bezeichnen sind. Gerade in wissenschaftlichen Untersuchungen gilt es zu beachten, dass ein Performance Measurement unterschiedlicher Unternehmensbereiche, -ebenen und -levels hohe Anforderungen stellt, bestimmte (sensible) (Finanz-) Daten oftmals nicht verfügbar sind und (theoretisch) industriespezifische Besonderheiten berücksichtigt werden sollten. Insofern sind Performance-Vergleiche und -Messungen sowie die Etablierung einheitlicher Performance-Standards für Wissenschaftler und Führungskräfte gleichermaßen herausfordernd.



Darstellung 7: Konzeptionelles Framework der Performance-Dimensionen⁷⁹

4.2 Analyse der Buying Firm’s Performance Outcomes-Konstrukte

Folgende Darstellung 8 visualisiert die autoren-spezifische Auswertung der *Buying Firms’ Performance Outcomes* (vgl. zudem Anlage 4). Aufgrund der Inhomogenität der verwendeten Konstrukte wurde eine relativ breite Kategorisierung in *economic* und *operational Business Performance* (BP), *operational Manufacturing Performance* (MP) sowie *operational Purchasing and Supply Performance* (PSP) vorgenommen.

Author(s) (Year)	Business Performance (BP)								Manufacturing Performance	Purchasing and Supply Performance
	Economic BP		Operational BP							
	Financial indicators	Market-based indicators	Cost indicators	Time/ Delivery indicators	Flexibility indicators	Quality indicators	Innovation indicators	Customer-related indicators		
BAIER ET AL. (2008)	x									
BERNARDES (2010)				x	x		x	x		
BERNARDES/ ZSIDISIN (2008)				x	x		x	x		
CARR/ PEARSON (1999)	x									
CARR/ PEARSON (2002)	x	x								
CARR/ SMELTZER (1999b)	x									
CHEN ET AL. (2004)	x			x	x			x		
CHIANG ET AL. (2012)				x	x			x		
COUSINS ET AL. (2006)	x								(x)	x
DAS/ NARASIMHAN (2000)									x	

⁷⁹ Eigene Darstellung erstellt in Anlehnung an VENKATRAMAN/ RAMANUJAM (1986), SHI/ YU (2013), WARD ET AL. (1998), GENTRY/ SHEN (2010), RICHARD ET AL. (2009) und ZHANG ET AL. (2011).

DAVID ET AL. (2002)	x									x
FOERSTL ET AL. (2013)	x									x
GOH ET AL. (1999)	x									
GONZÁLEZ-BENITO (2007)	x	x					x	x		
GONZÁLEZ-BENITO (2010)	x	x					x	x		
KERN ET AL. (2011)										x
LAWSON ET AL. (2009)										x
NARASIMHAN/ DAS (2001)									x	
NARASIMHAN ET AL. (2001)		x				x		x		
PAGELL/ KRAUSE (2002)			x	x	x	x	x			
PAULRAJ/ CHEN (2005a)				x	x	x		x		
PAULRAJ/ CHEN (2005b)						x				
PAULRAJ/ CHEN (2007)			x	x	x	x		x		(SP)
PAULRAJ ET AL. (2006)	x		x	x	x	x				(SP)
SÁNCHEZ-RODRÍGUEZ (2009)										x
SCHOENHERR/ MABERT (2011)										x
SHAO ET AL. (2012)	x	x								x
SU (2013)										x
SU/ GARGEYA (2012b)	x	x								
TOTAL	14	6	3	8	8	6	5	9	3	9

Darstellung 8: Analyse der Buying Firm's Performance Outcomes-Dimensionen

Business Performance

Die BP lässt sich auf *firm-level* Ebene in *economic* und *operational performance outcomes* differenzieren. Die ***economic BP*** kann im Anschluss daran ferner in *financial accounting-based* und *market-based economic BP* kategorisiert werden. So zeigt Darstellung 9 dann auch, dass insgesamt 15 Studien *economic indicators* zur Messung der BP berücksichtigen⁸⁰ und 14 Studien keine economic BP-Kennzahlen heranziehen (vgl. dazu ebenfalls Anlage 4).⁸¹ Als ***finanzielle Kenngrößen*** werden *Sales (growth)*, *Profit (as % of sales/ growth/ margin)*, *Return on Investment (ROI)*, *Return on Assets (ROA)*, *Return on Equity (ROE)*, *Cost of Goods Sold (COGS)*, *Return on Sales (ROS)*, *Earnings Before Interest, Taxes, Depreciation, and Amortization (EBITDA) (growth/ margin)*, *Net Income before Taxes (NIT)*, *Present Value of the Firm (PV)* oder *Labor Productivity*

⁸⁰ Vgl. BAIER ET AL. (2008); CARR/ PEARSON (1999, 2002); CARR/ SMELTZER (1999b); CHEN/ PAULRAJ/ LADO (2004); COUSINS ET AL. (2006); DAVID ET AL. (2002); FOERSTL ET AL. (2013); GOH/ LAU/ NEO (1999); GONZÁLEZ-BENITO (2007, 2010); NARASIMHAN ET AL. (2001); PAULRAJ ET AL. (2006); SHAO ET AL. (2012); SU/ GARGEYA (2012b).

⁸¹ Vgl. BERNARDES (2010); BERNARDES/ ZSIDISIN (2008); CHIANG ET AL. (2012); DAS/ NARASIMHAN (2000); KERN ET AL. (2011); LAWSON ET AL. (2009); NARASIMHAN/ DAS (2001); PAGELL/ KRAUSE (2002); PAULRAJ/ CHEN (2005a, b, 2007); SÁNCHEZ-RODRÍGUEZ (2009); SCHOENHERR/ MABERT (2011); SU (2013).

verwendet. Dabei werden die Kennzahlen ROA, ROI, und Profits as a percent of Sales am häufigsten eingesetzt, wobei eine isolierte Nutzung einer einzigen, ausgewählten *single performance measure* c.p. nur in Ausnahmefällen erfolgt.⁸² Als wesentliche Ergänzung zu den finanziellen Kennzahlen werden **marktbasierte Erfolgsgrößen** herangezogen, welche den Erfolg eines Unternehmens auf den Absatzmärkten und die Wettbewerbsposition fokussieren (vgl. Darstellung 9). Der am häufigsten verwendete Indikator *Market Share* (MS) kann hier auf das Hauptprodukt⁸³, die (stärksten) Mitbewerber⁸⁴ oder zeitliche Intervalle⁸⁵ bezogen werden.

⁸² DAVID ET AL. (2002) verwenden zwar den ROA als single measure, beziehen sich dann aber auf objektive Daten aus der Compustat-Datenbank.

⁸³ Vgl. González-Benito, J., *Business Performance*, 2007, S. 909; González-Benito, J., *Business Performance*, 2010, S. 784; Narasimhan, R. et al., *Examination*, 2001, S. 7.

⁸⁴ Vgl. Shao, J.; Moser, R.; Henke, M., *Supply Performance*, 2012, S. 28; Su, J.; Gargeya, V. B., *Sourcing*, 2012b, S. 153.

⁸⁵ Vgl. Carr, A. S.; Pearson, J. N., *Purchasing*, 2002, S. 1043.

<i>Author(s) (Year)</i>	<i>Sales (Growth)</i>	<i>(Reduction of) COGS</i>	<i>EBITDA Growth</i>	<i>EBITDA Margin</i>	<i>NIT</i>	<i>Labor Productivity¹</i>	<i>PV</i>	<i>Profits as % of Sales</i>	<i>Profit Growth</i>	<i>Profit Margin²</i>	<i>ROA</i>	<i>ROE</i>	<i>ROI</i>	<i>ROS</i>	<i>Market-based</i>
BAIER ET AL. (2008)	x	x		x							x				
CARR/ PEARSON (1999)					x		x	x					x		
CARR/ PEARSON (2002)					x			x					x		MS
CARR/ SMELTZER (1999b)	x							x					x		
CHEN/ PAULRAJ/ LADO (2004)					x			x					x		
COUSINS ET AL. (2006)									x		x		x	x	
DAVID ET AL. (2002)											x				
FOERSTL ET AL. (2013)	x	x	x								x	x			
GOH/ LAU/ NEO (1999)										x					x
GONZÁLEZ-BENITO (2007)	x					x		x					x		MS
GONZÁLEZ-BENITO (2010)	x					x		x					x		MS
NARASIMHAN ET AL. (2001)															x
PAULRAJ ET AL. (2006)					x		x	x					x		
SHAO ET AL. (2012)	x											x	x	x	MS
SU/ GARGEYA (2012b)										x	x				MS
TOTAL	6	2	1	1	4	2	2	7	1	2	5	2	9	2	7

Legende: ¹ Labor productivity measured by sales/ employees; ² Profit margin defined as net income as a percent of sales; (Annual reduction of) Cost of Goods Sold (COGS); Earnings Before Interest, Taxes, Depreciation and Amortization (EBITDA); Firm's Net Income before Taxes (NIT); Present Value of the Firm (PV); Return on Assets (ROA); Return on Equity (ROE); Return on Investment (ROI); Return on Sales (ROS); Market Share (MS)

Darstellung 9: Analyse der Economic (Business) Performance-Kennzahlen

Die **operational BP** wird in 13 empirischen Studien zur Messung der operativen Leistungsfähigkeit der Unternehmen herangezogen (*key success factors*), wobei sich die jeweils verwendeten Kompetenz-Indikatoren grundsätzlich entlang der Wettbewerbsdimensionen *cost (incl. inventory)*, *quality*, *time/ delivery*, *flexibility/ agility*, *innovation* und *customer-related indicators* kategorisieren lassen (vgl. Darstellung 8).⁸⁶

PAULRAJ/ CHEN (2005a, 2007) und PAULRAJ ET AL. (2006) berücksichtigen in Ihrem multi-dimensionalen *operational buyer performance*-Konstrukt weitestgehend sehr ähnliche Items, welche sich (mit minimalen Abweichungen) auf die angeführten operationalen Wettbewerbsdimensionen beziehen.⁸⁷ PAGELL/ KRAUSE (2002) konzeptualisieren die operationale *plant performance* ebenfalls mehr-dimensional über 7 Items. Allerdings zeigt ein tiefergehender Vergleich der verwendeten Indikatoren, dass erhebliche Unterschiede in der Operationalisierung bestehen. Exemplarisch sei hier angeführt, dass PAULRAJ ET AL. (2006) und PAULRAJ/ CHEN (2007) die *production costs* messen, während PAGELL/ KRAUSE (2002) den *unit price of manufacturing* und die *total costs* erfassen.⁸⁸ COUSINS ET AL. (2006) benennen ihr multi-dimensionales Konstrukt zwar *production performance*, messen damit aber auch die operationale Unternehmensperformance in den Dimensionen *product quality*, *delivery speed*, *delivery reliability* und *flexibility of production*. BERNARDES (2010) und BERNARDES/ ZSIDISIN (2008) messen die operationale BP durch ein mehr-dimensionales *customer responsiveness*-Konstrukt, welches die Dimensionen *time/ delivery*, *flexibility* und *innovation* mit entsprechenden Indikatoren einbezieht und exklusiv *endkundenbezogen* operationalisiert ist.⁸⁹ CHIANG ET AL. (2012) konstruieren ein sogenanntes *supply chain agility performance*-Konstrukt mit einen für

⁸⁶ Die non-accounting-based Kosten-Kenngrößen wurden in dieser Untersuchung der operationalen BP zugeordnet.

⁸⁷ Während PAULRAJ ET AL. (2006) den Indikator *customer satisfaction* zusätzlich beachten, ist dies bei PAULRAJ/ CHEN (2007) nicht der Fall ist. PAULRAJ/ CHEN (2005a) betrachten demgegenüber die Größen 1) *quality*, 2) *delivery speed*, 3) *delivery reliability/ consistency*, 4) *delivery lead-time*, 5) *production lead-time*, 6) *volume flexibility*, 7) *rapid confirmation of customer orders*, 8) *rapid handling of customer complaints*, 9) *customer satisfaction*.

⁸⁸ PAULRAJ ET AL. (2006) operationalisieren die *buyer performance* durch die Messgrößen 1) *product conformance to specifications*, 2) *production costs*, 3) *volume flexibility*, 4) *delivery speed*, 5) *delivery reliability/ dependability*, 6) *rapid confirmation of customer orders*, 7) *rapid handling of customer complaints* und 8) *customer satisfaction*. PAULRAJ/ CHEN (2007) ziehen ebenfalls diese Items heran, jedoch ohne den Indikator *customer satisfaction*. PAGELL/ KRAUSE (2002) verwenden hingegen folgende Messgrößen: 1) *unit price of manufacturing*, 2) *total cost*, 3) *product quality*, 4) *delivery speed*, 5) *delivery dependability*, 6) *flexibility*, 7) *speed of new product introductions*.

⁸⁹ BERNARDES/ ZSIDISIN (2008) und BERNARDES (2010) beziehen zunächst jeweils die sechs Indikatoren 1) *develop new products in anticipation of customer needs*, 2) *incorporate the latest technologies in our products to satisfy customer needs*, 3) *offer products if we identify a new market segment*, 4) *respond at once if customer's needs change*, 5) *respond quickly to special customer request*, 6) *be proactive in shaping customer's needs rather than being reactive* mit ein. Die Items 4) und 5) wurden allerdings in der Studie von BERNARDES/ ZSIDISIN (2008) nach der statistischen Überprüfung ausgeschlossen.

diesen SLR relevanten *customer responsiveness*-Baustein,⁹⁰ welcher allerdings mit komplett anderen Indikatoren operationalisiert wurde, als das gleichnamige Konstrukt von BERNARDES (2010) und BERNARDES/ ZSIDISIN (2008). CHEN ET AL. (2004) messen die operational BP ebenfalls durch ein *customer responsiveness*-Konstrukt, welches aber im Unterschied zu den beiden zuvor genannten Konstrukten lediglich durch die beiden Items *rapid confirmation of customer orders* und *rapid handling of customer complaints* operationalisiert ist. Im Gegensatz dazu führen PAULRAJ/ CHEN (2005b) hingegen lediglich eine uni-dimensionale Messung der operationalen *buyer quality performance (high-quality products that conform to quality specifications)* durch. GONZÁLEZ-BENITO (2007, 2010) konstruiert (neben einem economic BP-Konstrukt) die sogenannte *commercial performance*. Dieses Konstrukt umfasst dabei allerdings nicht ausschließlich operationale Kennzahlen; vielmehr werden hier sehr unterschiedliche Indikatoren verwendet (*sales growth, reputation and image, customer satisfaction, market share* und *success of new product launches*). NARASIMHAN ET AL. (2001) messen die Unternehmensperformance ebenfalls mit einem *market-based economic* Indikator (*actual percentage of market share for the firm's principal product*) und zwei operationalen Kennzahlen (*degree of achievement of quality improvement goals* und *degree of achievement of customer satisfaction goals*).

Empfehlung 11: Da den *economic (accounting-/ market-based)* und den *operationalen* BP-Indikatoren bestimmte Vor- und Nachteile immanent sind, sollten empirische Studien diese Kennzahlentypen in Zukunft simultan erfassen und die jeweiligen Effekte des Strategie-Alignments auf die BP zunächst unabhängig voneinander auswerten. Anschließend kann durchaus ein multidimensionales Konstrukt mit ausbalancierten Performance-Indices integrativ zusammengefasst werden.⁹¹ Wie Darstellung 8 darüber hinaus zeigt, wurde die zunehmend wichtigere *innovation performance* in lediglich 7 Studien⁹² berücksichtigt und damit im Vergleich zu den anderen *competitive dimensions* doch relativ stark vernachlässigt.⁹³

⁹⁰ *Supply chain agility performance* besteht aus den Bausteinen *customer responsiveness, demand response* und *joint planning*, wobei die beiden letztgenannten Dimensionen per definitionem ausgeschlossen wurden (keine buying firm's performance outcomes i.e.S.).

⁹¹ Vgl. auch die Argumentation bei Shi, M.; Yu, W., Review, 2013, S. 1312 und Venkatraman, N.; Ramanujam, V., Measurement, 1987, S. 109-122.

⁹² Vgl. Bernardes, E. S., Performance, 2010, S. 56; Bernardes, E. S.; Zsidisin, G. A., Supply Management, 2008, S. 217 (*develop new products in anticipation of customer needs; incorporate the latest technologies in our products to satisfy customer needs; offer products if we identify a new market segment*); Lawson, B. et al., Performance, 2009, S. 2667 (*we have continued to be able to improve product design performance through this supplier relationship; we have continued to be able to improve process design through this supplier relationship*); González-Benito, J., Business Performance, 2007, S. 909 und González-Benito, J., Business Performance, 2010, S. 784 (*success of new product launches*); Foerstl, K. et al., Integration, 2013, S. 694 (*contribution to innovation*); Pagell, M.; Krause, D. R., Consensus, 2002, S. 3085 (*speed of new product introductions*).

⁹³ Vgl. zur Innovationsperformance die Arbeiten von Castaldi, C.; ten Kate, C.; den Braber, R., Innovation, 2011, S. 983; Håkansson, H.; Eriksson, A. K., Innovations, 1993, S. 3-34; Schiele, H., Identifying, 2006, S. 925-935; Luzzini, D.; Ronchi, S., Organizing, 2011, S. 14-27.

Manufacturing Performance

In lediglich 2 empirischen Studien wird die *operational MP* auf funktionalem Level als abhängige Variable operationalisiert, so dass die Verbindung von Zielen und Strategien im PSM und die damit verbundenen MP-Effekte bis dato relativ selten untersucht wurden.⁹⁴ Die MP-Konstrukte von DAS/ NARASIMHAN (2000) und NARASIMHAN/ DAS (2001) fußen dabei auf den Dimensionen *manufacturing cost reduction, quality performance (number of defects/ production reduction), new product introduction time reduction performance, delivery performance (cycle time reduction goals, delivery speed and dependability)* und *customization responsiveness (meeting customization requests)*.⁹⁵

Empfehlung 12: Da Strategie-Alignment-Effekte auf die MP bisher unzureichend untersucht wurden, sind weitere Studien dringend anzuraten, um diesbezügliche Zusammenhänge besser verstehen zu können.

Purchasing and Supply Performance

Die *operational PSP* wird in 9 Studien auf funktionalem Level als abhängige (oder mediating) Variable operationalisiert.⁹⁶ Auffällig ist dabei, dass nicht nur die Konstrukt-Bezeichnungen der PSP im Unterschied zur BP stärker variieren,⁹⁷ sondern sich die *operationalen PSP-Kennzahlen* auch noch stärker unterscheiden (vgl. Darstellung 8).⁹⁸

FOERSTL ET AL. (2013) konzeptionalisieren die operationale PSP als multidimensionales Konstrukt mit den 5 Items *direct costs, total landed costs, quality, lead times* und *contribution to innovation*. Ähnliche PSP-Konstrukte verwenden sowohl KERN ET AL. (2011), welche die operationale Performance über die Indikatoren *cost reductions, quality, delivery* und *flexibility* erfassen, als auch SÁNCHEZ-RODRÍGUEZ (2009), welcher die Indikatoren *cost of materials, quality of materials, on-time delivery, inventory performance* und *internal customer satisfaction* berücksichtigt. Allerdings wird die operationale PSP in den beiden zuletzt genannten Studien exklusiv als abhängige Variable instrumentalisiert, während FOERSTL ET AL. (2013) die operationale PSP

⁹⁴ Vgl. Das, A.; Narasimhan, R., *Purchasing*, 2000, S. 17-28; Narasimhan, R.; Das, A., *Performance*, 2001, S. 593-609.

⁹⁵ Vgl. Das, A.; Narasimhan, R., *Purchasing*, 2000, S. 17-28; Narasimhan, R.; Das, A., *Performance*, 2001, S. 602.

⁹⁶ Vgl. COUSINS ET AL. (2006); DAVID ET AL. (2002); FOERSTL ET AL (2013); KERN ET AL. (2011); LAWSON ET AL. (2009); SÁNCHEZ-RODRÍGUEZ (2009); SCHOENHERR/ MABERT (2011); SHAO ET AL. (2012); SU (2013).

⁹⁷ Als alternative Termini für die operational PSP werden von DAVID ET AL. (2002) *purchasing operational efficiency*, von SÁNCHEZ-RODRÍGUEZ (2009), KERN ET AL. (2011) sowie FOERSTL ET AL (2013) *purchasing performance*, von SCHOENHERR/ MABERT (2011) *purchase performance*, von SHAO ET AL. (2012) *strategic supply performance outcomes*, von COUSINS ET AL. (2006) *supplier relationship outcomes*, von LAWSON ET AL. (2009) *buyer performance* und von SU (2013) *sourcing performance*, verwendet.

⁹⁸ Die *internal customer satisfaction* bezieht sich in den empirischen Studien primär auf die Zufriedenheit der internen Bedarfsträger (Fertigung).

als *mediating*-Konstrukt designen. SHAO ET AL. (2012) entwickeln ebenfalls ein *mediating* PSP-Konstrukt, welches sich dann allerdings in der grundsätzlichen Struktur von den drei zuvor genannten Studien signifikant unterscheidet. Die dortigen *strategic supply performance outcomes* wurden schließlich in die Dimensionen *cost saving*, *contribution to sales increase*, *reduction of working capital* und *reduction of supply risks* mit jeweils vier Items gruppiert. Um die formulierten, sehr spezifischen Forschungsfragen beantworten zu können, entwickeln SCHOENHERR/ MABERT (2011) das *purchase performance*-Konstrukt, welches sich dabei sehr konkret auf etwaige positive Wertbeiträge aus einer Bedarfsbündelung bezieht.⁹⁹ Die *sourcing performance outcomes* von SU (2013) sind ebenso wenig mit anderen Konstrukten der Literatur vergleichbar, da eine relativ abstrakte Operationalisierung über die drei Items *purchasing function is very important to the overall company success*, *purchasing function adds value to the firm in production/ operations/ logistics* und *purchasing contributes to the firm's bottom-line profit* erfolgt. LAWSON ET AL. (2009) sind in der Operationalisierung¹⁰⁰ des *buyer performance*-Konstrukts hingegen wesentlich konkreter und beziehen etwaige positive PSP-Effekte noch stärker auf die jeweilige Zuliefere-Abnehmer-Beziehung. Ein sehr ähnliches, relational ausgestaltetes Konstrukt mit der Bezeichnung *supplier relationship outcomes* wird zudem von COUSINS ET AL. (2006) verwendet.¹⁰¹ Einen wesentlich stärkeren internen Blickwinkel nehmen hingegen DAVID ET AL. (2002) ein, indem sie die operationale Effizienz über die drei Indikatoren *purchasing amount per dollar of purchasing operating expenses*, *purchase amount per employee* und *inventory turnover* operationalisieren.

Empfehlung 13: In Zukunft sollten zunächst die adäquate Operationalisierung und Messung der PSP umfassend diskutiert werden. Darüber hinaus sollte zudem eine konzeptionelle Weiterentwicklung der operationalen PSP um eine ökologische/ soziale Dimension mit Nachdruck verfolgt werden. Aus methodischer Sicht ist außerdem angeraten, dass der Performance-Impact des Strategie-Alignments zunächst grundsätzlich separat auf die einzelnen disaggregierten Dimensionen und anschließend auf ein integri-

⁹⁹ Das *purchase performance*-Konstrukt umfasst folgende sieben Indikatoren: 1) *The bundle received competitive bids*; 2) *Bundling created internal synergies and savings (lower administrative costs)*; 3) *We would repeat the bundling again for the same items in the future*; 4) *We achieved our goals*; 5) *Bundling increased our bargaining power with suppliers*; 6) *The final purchase price we had to pay for the entire bundle was lower than expected*; 7) *We regret the decision to bundle the items together*.

¹⁰⁰ Das *buyer performance*-Konstrukt bezieht folgende drei Indikatoren mit ein: 1) *We have continued to be able to improve product design performance through this supplier relationship*; 2) *We have continued to be able to improve process design through this supplier relationship*; 3) *We have continued to be able to improve product quality through this supplier relationship*.

¹⁰¹ Das *supplier relationship* Konstrukt beinhaltet folgende Messvariablen: 1) *We have continued to be able to improve product design performance*; 2) *We have continued to be able to improve process design*; 3) *We have continued to be able to improve product quality*; 4) *We have continued to reduce lead*; 5) *Our partnerships have contributed to increasing product sales*.

ves Konstrukt untersucht wird. Dabei sollte insbesondere der Einfluss auf die *innovation performance* stärkere Beachtung finden, um der zunehmend wichtigeren Rolle der Lieferantenbasis in der Produktentwicklung gerecht zu werden.¹⁰² Zudem sollte die mediiierende Rolle der PSP noch umfassender erforscht werden.

4.3 Analyse der Buying Firm's Performance Outcomes-Messung

Im folgenden Abschnitt werden die in Darstellung 7 visualisierten Fragen der Messung und Bewertung der Performance Outcomes analysiert, um diesbezügliche Empfehlungen abzuleiten.

Data Sources

Die empirischen Studien fußen primär auf *primary data* (26 Studien), während *secondary data* weit weniger erhoben wurden (4 Studien).¹⁰³ So beziehen sich DAVID ET AL. (2002) exklusive auf *secondary data* der *Standard and Poor's Compustat Database*. FOERSTL ET AL. (2013) kombinieren interessanterweise primäre und sekundäre Daten, wohingegen CARR/ PEARSON (2002) und CARR/ SMELTZER (1999b) auf die Daten von CARR/ PEARSON (1999) zurückgreifen.

Mode of Assessment

Die Analyse der empirischen Studien zeigt außerdem, dass sowohl *objective* als auch *subjective* Mess-Techniken herangezogen wurden.¹⁰⁴ Insgesamt ist dabei allerdings zu beobachten, dass primär sogenannte subjektive *self-reported perceptual* Performance-Kennzahlen als Substitut für die tatsächliche Performance verwendet wurden. Lediglich die BAIER ET AL. (2008) und DAVID ET AL. (2002) verwenden ausschließlich *objective measures*. Darüber hinaus werden in den Arbeiten von CARR/ PEARSON (1999, 2002) die subjektiv erhobenen Daten anhand von objektiven Daten (zumindest stichprobenartig) überprüft.¹⁰⁵

¹⁰² Vgl. Castaldi, C.; ten Kate, C.; den Braber, R., *Innovation*, 2011, S. 994. Dort konnte der positive Einfluss einer stärkeren Lieferanteneinbeziehung auf die Innovationskraft verifiziert werden.

¹⁰³ Interessanterweise wurden 4 Studien identifiziert, die entweder *primary* und *secondary data* erheben oder die *secondary data* anhand von ausgewählten *primary data* überprüfen. Für genauere Informationen hierzu wird auf die Spalte *data sources* in Anlage 4 hingewiesen.

¹⁰⁴ *Subjektive Indikatoren* sind sogenannte *self-reported* Performance-Daten, welche auf der Wahrnehmung bzw. Meinungen der befragten Manager fußen (*anticipated measures, perceptual measures, opinions or estimates*) und damit die tatsächliche Performance durch Näherungswerte substituieren. *Objektive Performance-Informationen* beruhen daher hingegen auf beobachtbaren Tatsachen (*internal (accounting) systems* oder *standard records*).

¹⁰⁵ In diesem Zusammenhang ist allerdings auf die Untersuchungsergebnisse von DESS/ ROBINSON (1984), VENKATRAMAN/ RAMANUJAM (1987) und WALL ET AL. (2004) zu verweisen, die belegen, dass die sogenannten *self-reported subjective performance data* sehr eng mit der *objective Performance* von internen und externen Quellen korreliert sind.

Relativization of performance data

Hinsichtlich der Messung der Performance Outcomes wurde als dritter wesentlicher Punkt herausgearbeitet, dass die Studien in der Erhebung von subjektiven Einschätzungen mehrheitlich auf eine Relativierung der Performance-Daten Wert legen (*perceptual measures relative to major competitors in the same industry or to that of a number of previous years*).

Number of Measure(s)

Bezüglich der Anzahl der eingesetzten Messgrößen kann konstatiert werden, dass die empirischen Studien überwiegend 4-5 Indikatoren zur Beurteilung heranziehen. Umfassendere Kennzahlensysteme werden bspw. von PAULRAJ/ CHEN (2005a, 2007) sowie PAULRAJ ET AL. (2006) entwickelt. Lediglich die Studie von DAVID ET AL. (2002) weicht hiervon signifikant ab, indem Sie lediglich den Indikator *ROA* verwendet.

Empfehlung 14: In Zukunft sollten die Vor- und Nachteile der Verwendung von objektiven oder subjektiven Kennzahlen noch stärker gegeneinander abgewogen werden, wobei zur Vermeidung von etwaigen Verzerrungen objektive (secondary) Performance-Data zur Überprüfung der subjektiven Selbsteinschätzungen herangezogen werden sollten. Sofern möglich, sollten sowohl subjektive als auch objektive Kennzahlen miteinander kombiniert werden.

5 Performance Einfluss des Strategie-Alignments (relationale Beziehung)

5.1 Konzeptionelles Framework zur Analyse der Auswirkung des Strategie-Alignments auf die Buying Firm's Performance Outcomes

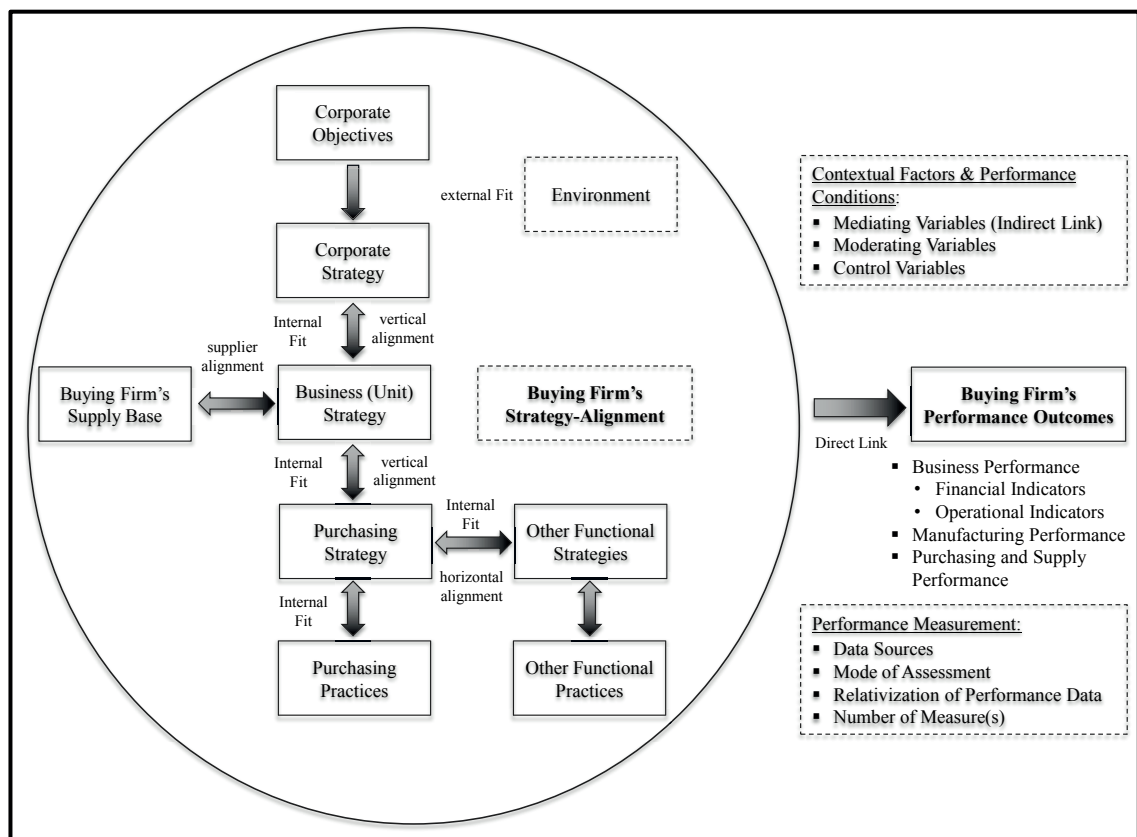
Führt man nun die Erkenntnisse aus Kapitel 3 (Darstellung 5) und Kapitel 4 (Darstellung 7) konzeptionell zusammen, so ergibt sich der in Darstellung 10 abgebildete integrative Bezugsrahmen. Demzufolge können die drei unterschiedlichen Alignment-Dimensionen 1) unabhängig voneinander und/ oder miteinander verbunden und 2) direkt und/ oder indirekt auf die multi-dimensional konzeptualisierte Unternehmensperformance wirken.¹⁰⁶ Da ein Strategie-Alignment im PSM immer auch kontextabhängig ist und entsprechende Maßnahmen gemäß den situativen Anforderungen umgesetzt werden müssen,¹⁰⁷ berücksichtigt der Bezugsrahmen neben dem *performance measurement* ebenso die *performance conditions* und *contextual factors*.¹⁰⁸ Der Einbezug dieser

¹⁰⁶ Vgl. zur Multi-Dimensionalität der Performance Richard, P. J. et al., Performance, 2009, S. 718 ff.

¹⁰⁷ Vgl. David, J. S. et al., Congruence, 2002, S. 866 f.

¹⁰⁸ Vgl. zur Kontingenzttheorie Donaldson, L., Contingency Theory, 2001; Lawrence, P. R.; Lorsch, J. W., Differentiation, 1967, S. 1-47.

contextual factors kann dabei in empirischen Studien durch *control variables*, *mediating variables* oder *moderating variables* erfolgen.¹⁰⁹



Darstellung 10: Integrativer konzeptioneller Bezugsrahmen¹¹⁰

5.2 Analyse der Auswirkung eines Strategie-Alignments auf die Buying Firm's Performance Outcomes

Im ersten Schritt der inhaltlichen Analyse werden die wichtigsten Ergebnisse in Darstellung 11 zunächst studien-bezogen präsentiert. Anschließend erfolgt eine konsolidierte Betrachtung entlang der wichtigsten *Research Streams* und gemäß der Zuordnung von Darstellung 6 (für eine vollständige Übersicht der untersuchten Hypothesen und zugehöriger Befunde vgl. Anlage 5). Um Missverständnissen vorzubeugen werden analog zu den Kapiteln 3 und 4 für die folgende Diskussion der Forschungsergebnisse die eng-

¹⁰⁹ Vgl. hierzu auch Zhang, X.; van Donk, D. P.; van der Vaart, T., Review, 2011, S. 1215-1247; Baron, R. M.; Kenny, D. A., Distinction, 1986, S. 1173-1182; Kerkfeld, D.; Hartmann, E., Investments, 2012, S. 464-489; Goldsby, T. J. et al., Measurement and Moderation, 2013, S. 109-116.

¹¹⁰ Erstellt in Anlehnung an Baier, C.; Hartmann, E.; Moser, R., Alignment, 2008, S. 38; González-Benito, J., Business Performance, 2007, S. 903; González-Benito, J., Business Performance, 2010, S. 778; Leong, G. K.; Snyder, D. L.; Ward, P. T., Research, 1990, S. 111; Watts, C. A.; Kim, K. Y.; Hahn, C. K., Purchasing, 1995, S. 7; Weir, K. A. et al., Alignment, 2000, S. 833; Carr, A. S.; Smeltzer, L. R., Strategic Purchasing, 1997, S. 200; Krause, D. R.; Pagell, M.; Curkovic, S., Purchasing, 2001, S. 500; Pohl, M.; Förstl, K., Measurement, 2011, S. 232. Darüber hinaus wurden die Qualitätskriterien von SONI/ KODALI (2013) zur Entwicklung dieses integrativen Bezugsrahmens berücksichtigt.

lischsprachigen Bezeichnungen der Konstrukte unverändert übernommen und wiederum durch *Kursiv-Schrift* kenntlich gemacht.

<i>Author(s) (Year)</i>	<i>Major Research Findings</i>
BAIER ET AL. (2008)	Concerning <i>strategic alignment</i> (relative fit between business and purchasing strategy), this highly innovative research project showed that 1) the ideal profiles of purchasing competitive priorities differ across SBUs following the two different <i>business strategy types</i> and 2) deviations from the ideal purchasing competitive priority profiles were consistently associated with decreased financial performance (high-performing cost leaders prioritize cost reduction over quality improvement and innovation, while successful differentiators emphasis on quality aspects and to a lesser extent on innovation). With regard to <i>purchasing efficacy</i> (relative fit between purchasing strategy and purchasing practices), results confirmed that 3) ideal profiles of purchasing practices differ across SBUs following different purchasing competitive priorities and 4) deviations from the ideal PSMP profiles were consistently associated with lower financial performance.
BERNARDES (2010)	This study analyses the links between <i>strategic purchasing</i> , <i>network-relational embeddedness</i> , <i>network-shared cognition</i> and <i>customer responsiveness</i> . The findings confirmed 1) the previously identified positive relation between <i>strategic purchasing</i> and <i>relational embeddedness</i> . Additionally, 2) a positive impact of <i>strategic purchasing</i> on <i>network-shared cognition</i> was supported. 3) <i>Network-shared cognition</i> as a network-learning phenomenon improves the <i>customer responsiveness</i> level of a focal firm.
BERNARDES/ ZSIDISIN (2008)	This study examines the performance impact of <i>strategic supply management</i> (= <i>strategic purchasing</i> defined as the level of strategic focus and strategic involvement of PSM) on <i>customer responsiveness</i> mediated by the two constructs <i>relational embeddedness</i> and <i>network scanning</i> . The findings indicated that firms with high levels of <i>strategic supply management</i> are able to directly improve their <i>customer responsiveness</i> by <i>scanning their supply base network</i> and indirectly by <i>relational embedded relations with those suppliers</i> .
CARR/ PEARSON (1999)	This study researches <i>strategic purchasing</i> (alignment between the strategies and daily activities of the functional level with the strategic plans at the corporate level) and its impact on <i>supplier evaluation systems</i> , <i>buyer-supplier relationships</i> and a <i>firm's financial performance</i> . The findings showed that 1) companies with <i>strategic purchasing</i> are more likely to implement a supplier evaluation system and strategically managed long-term relationships with key suppliers and 2) cooperative buyer-supplier relationships and effective communication with key supplier, in turn, positively impact on the firm's financial performance. 3) Evidence was provided for a significant direct (and indirect) positive performance impact of strategic purchasing on financial performance.
CARR/ PEARSON (2002)	This study tests the relationship between the <i>purchasing/ supplier involvement in NPD</i> , <i>strategic purchasing</i> and <i>firm's financial performance</i> . The findings substantiated that <i>purchasing/ supplier involvement</i> is positively related to <i>strategic purchasing</i> , and <i>strategic purchasing</i> has a positive impact on <i>firm's financial performance</i> . Study confirmed controlling for firm size that <i>strategic purchasing</i> has an impact on <i>firm's financial performance</i> in both small and large firms.
CARR/ SMELTZER (1999b)	This study tests the relations between <i>strategic purchasing</i> , <i>supply chain management (supplier communication, supplier responsiveness, and change in the supplier market)</i> , and <i>firm performance</i> . The findings confirmed that <i>strategic purchasing</i> is 1) positively related to <i>supplier responsiveness</i> , 2) <i>changes in the supplier market</i> and 3) <i>supplier communication</i> . 4) <i>Strategic purchasing</i> directly impacted on <i>firm performance</i> .
CHEN/ PAULRAJ/ LADO (2004)	This study verifies significant positive relationships between <i>strategic purchasing</i> , <i>supply management capabilities (communication, limited number of suppliers and long-term relationship orientation)</i> , <i>customer responsiveness</i> and <i>financial performance</i> . The paths between <i>strategic purchasing</i> to <i>limited number of suppliers</i> , <i>long-term orientation</i> and <i>communication</i> were all statistically significant. The paths between <i>long-term orientation</i> and <i>communication</i> to <i>customer responsiveness</i> were significant, but <i>limited number of supplier</i> and <i>customer responsiveness</i> was not linked. <i>Customer responsiveness</i> was positively related to <i>financial performance</i> .
CHIANG ET AL. (2012)	This study examines the impact of <i>strategic sourcing</i> (consists of <i>strategic purchasing</i> , <i>internal integration</i> , <i>information sharing</i> and <i>supplier development</i>) and <i>strategic flexibility</i> on <i>supply chain agility</i> . The findings showed that 1) <i>strategic sourcing</i> had a significantly positive impact on <i>strategic flexibility</i> and <i>supply chain agility</i> , 2) high levels of <i>strategic flexibility</i> significantly contributed to <i>supply chain agility</i> and 3) a full mediation effect of <i>strategic flexibility</i> did not exist (but a partial mediation effect can be stated).
COUSINS ET AL. (2006)	This study investigates different patterns of PSM function configuration (<i>maturity levels</i> determined by strategic PSM, PSM status, PSM internal integration and PSM skills), and the relationship between such patterns and <i>organizational performance outcomes</i> . The analyses revealed 1) four distinct patterns of PSM function configuration (<i>strategic, celebrity, undeveloped and capable</i>) and 2) significant differences in supplier- and organizational-related performance outcomes across these four PSM function configurations (e.g., <i>strategic purchasers</i> as the most mature PSM configuration, achieve the highest means for each performance dimension). Moreover, 3) PSM skills were shown to be a precondition for PSM to exert influence within the organization.
DAS/ NARASIMHAN (2000)	The alignment construct <i>purchasing competence</i> (defined as latent capability to structure, develop and manage a buying firm's supply base in alignment with the manufacturing (and business) priorities of the firm) was constituted as a portfolio of four purchasing practices and its impact on MP was tested. The results substantiated that 1) <i>purchasing competence</i> has a significantly positive impact on aggregate MP and 2) the decomposed purchasing practices <i>supplier auditing capability</i> , <i>purchasing integration</i> and <i>buyer-supplier relationship development</i> also positively impact on aggregate MP. <i>Purchasing integration</i> conceptualized as one component of <i>PSM competence</i> was related to all variables of MP. 3) <i>Purchasing competence</i> should be tailored by weighting the different purchasing practices to meet specific MP objectives.
DAVID ET AL. (2002)	The analysis indicates that the higher the level of congruency between <i>product competitive strategies</i> adopted at corporate level and <i>PSM organizational design characteristics</i> is positively related to <i>financial performance outcomes</i> . Firms pursuing a cost strategy should adopt a centralized PSM structure, while firms pursuing a differentiation strategy can improve performance by decentralizing the PSM function. Examining whether or not a firm achieving a congruency in product strategy and design will lead to higher <i>operational efficiency</i> at the PSM management level, the results showed that this is true only under specific conditions.

FOERSTL ET AL. (2013)	This study links 4 purchasing practices directly to <i>purchasing performance</i> and indirectly to <i>financial performance</i> . A positive impact was found of <i>cross-functional integration</i> and <i>functional coordination</i> on <i>purchasing performance</i> , and of <i>purchasing performance</i> on <i>firm performance</i> . Both <i>talent management</i> and <i>performance management</i> have a positive impact on <i>cross-functional integration</i> and <i>functional coordination</i> . <i>Talent management</i> also has a direct impact on <i>purchasing performance</i> , in contrast to <i>performance management</i> .
GOH/ LAU/ NEO (1999)	This study researches the relationship between <i>corporate competitive strategy</i> and <i>PSM objectives</i> , and the impact of <i>CEO's perception of importance of purchasing</i> on three <i>purchasing practices</i> (<i>integration of purchasing with other functions</i> , <i>purchasing-supplier partnership</i> and <i>involvement of PSM in team decisions</i>) and, in turn, on BP. The findings indicated that 1) PSM objectives are influenced by a firm's corporate competitive strategy. 2) The <i>importance of purchasing</i> and the extent of the <i>purchasing-supplier partnership</i> are significantly related (links between the <i>importance of purchasing</i> and <i>purchasing's involvement in team decision making</i> or <i>purchasing's integration with other functions</i> were not supported). 3) <i>Greater integration with other functions</i> , <i>closer partnership with suppliers</i> and <i>greater involvement in team decision making</i> lead to improved BP.
GONZÁLEZ-BENITO (2007)	This study introduces the concept of <i>purchasing competence</i> with two levels of fit: <i>Strategic alignment</i> (conceptualized as PSM integration) describes the fit between <i>business strategy</i> and <i>purchasing strategic objectives/competitive priorities</i> . <i>Purchasing efficacy</i> is referred to the fit between <i>purchasing strategic objectives/competitive priorities</i> and <i>purchasing capabilities</i> . The findings indicated that 1) <i>purchasing efficacy</i> has a positive effect on <i>commercial and financial business performance</i> (for both purchasing efficiency indexes). 2) The hypothesis that the degree of <i>strategic integration of the purchasing function</i> positively moderates the relationship between <i>purchasing efficacy</i> and <i>business performance</i> was only supported by one index. However, only if both fit-dimensions are supported, will the PSM function be able to optimally contribute to firm performance. As the study primarily focused on PSM capabilities, it regards what specific PSMPs should be prioritized.
GONZÁLEZ-BENITO (2010)	This study analyzes the effect of <i>purchasing and supply strategies</i> on <i>commercial and financial business performance</i> . <i>Purchasing and supply strategy</i> was conceptualized as a <i>profile of generic competitive objectives</i> (not as a set of purchasing practices deployed by the PSM department) to investigate the effect on BP. The special focus on the relative importance that the PSM function grants to different competitive objectives revealed some interesting insights: 1) A firm can enhance its BP when it increases the relative importance of flexibility and decreases the relative importance of <i>logistics efficiency</i> (reductions in stock levels and PSM prices) in its <i>supply strategy</i> . 2) Top-performing firms combine quality, dependability, and flexibility as priority objectives and downgrade cost reductions to secondary importance.
KERN ET AL. (2011)	The findings showed 1) that a significant relationship between CPOs <i>purchasing management competence</i> and <i>operational performance</i> exists. 2) High competences in the management of all three stakeholders contribute most to cost performance (the impact of the stakeholders <i>suppliers</i> , <i>internal clients</i> and <i>PSM staff</i> was equally important). 3) Suppliers were shown to be the stakeholder group with the relatively strongest impact on PSP.
LAWSON ET AL. (2009)	This study examines the effect of <i>strategic purchasing</i> on a firm's <i>inter-organizational supply management practices</i> (<i>socialization mechanisms</i> , <i>supplier integration</i> and <i>supplier responsiveness</i>) and relationship performance. The findings verified that 1) <i>strategic purchasing</i> is significantly positive linked to higher levels of <i>socialization</i> and <i>supplier process integration</i> (but not to <i>supplier responsiveness</i>). 2) <i>Strategic purchasing</i> had a significantly positive, indirect impact on <i>buyer performance</i> operating through <i>supplier integration</i> .
NARA-SIMHAN/ DAS (2001)	This study explores the relationships of <i>purchasing integration</i> (into a firm's strategic management process) with <i>purchasing practices</i> and MP. The results revealed that <i>purchasing integration</i> positively moderates the relationship between <i>purchasing practices</i> (e.g. <i>buyer-supplier relationship development</i> , <i>supplier performance evaluation</i> and <i>supply base leveraging</i>) and MP. <i>Purchasing practices</i> did not show a significant influence on MP under low <i>purchasing integration</i> environments; <i>purchasing practices</i> were found to have a significantly positive impact on MP in medium and high <i>purchasing integration</i> conditions. Hence these advanced internal <i>purchasing practices</i> are a catalyst for effective external supplier-related practices.
NARA-SIMHAN ET AL. (2001)	This study argues that the contribution of <i>purchasing competence</i> lies in the implementation of certain PSMPs and tests the relationship of <i>purchasing competence</i> to <i>firm performance</i> . The results confirms that a significant positive influence of <i>purchasing competence</i> on <i>total quality management performance</i> and <i>customer satisfaction</i> exists, but no impact on <i>market share</i> is supported.
PAGELL/ KRAUSE (2002)	This study investigates the link between <i>strategic consensus</i> (agreement across functions concerning a firm's strategic priorities), the <i>internal fit</i> (alignment between functional strategies and a firm's business strategy and between functional strategies) and a <i>firm's performance</i> . The inquiry on the <i>strategic consensus between PSM and manufacturing</i> concerning the plant's strategic priorities revealed that 1) higher levels of <i>strategic consensus</i> between the manufacturing and the PSM function will lead to higher levels of <i>plant performance</i> . However, 2) in low-uncertainty environmental conditions the link between consensus and performance is even more complex than in environments with medium to high degrees of uncertainty.
PAULRAJ/ CHEN (2005a)	This study shows that <i>strategic supply management</i> is influenced by the critical factors <i>customer focus</i> , <i>competitive priorities</i> , <i>top management support</i> , <i>information technology</i> and <i>supply network structure</i> (only <i>environmental uncertainty</i> was not significantly related to <i>strategic supply management</i>). A significant positive effect of <i>strategic supply management</i> on <i>buyer's operational performance</i> was found.
PAULRAJ/ CHEN (2005b)	This study tests the effects of <i>strategic purchasing</i> on a broader conceptualization of <i>buyer-supplier relationships</i> (characterized by the three key constructs of <i>long-term relationships</i> , <i>supply base reduction</i> and <i>effective communication</i>), and in turn on <i>dyadic quality performance</i> . The results provide robust support for the notion that that 1) <i>strategic purchasing</i> is positively linked to all three <i>supplier related supply management practices</i> . 2) While the effect of <i>long-term relationships</i> on <i>dyadic quality performance</i> was found to be insignificant, the impact of <i>communication</i> on both <i>supplier and buyer quality performance</i> was significantly positive.
PAULRAJ/ CHEN (2007)	This study explores the direct effect of <i>supply chain uncertainties</i> (<i>demand</i> , <i>supply</i> and <i>technology</i>) on <i>strategic supply management</i> (operationalized as a second order construct comprising strategic purchasing, long-term relationship orientation, inter-firm communication, cross-organizational teams and supplier integration), and in turn, on the competitive advantage for buyer firms and their suppliers. 1) It revealed that <i>supply uncertainty</i> and <i>technology uncertainty</i> have a significant impact on <i>strategic supply management</i> , but <i>demand uncertainty</i> did not. 2) Beyond the positive impact of <i>strategic supply management</i> on <i>buyer's operational performance</i> and SP supported earlier, the positive impact of SP on <i>buyer's performance</i> was confirmed.

PAULRAJ ET AL. (2006)	The study supports that 1) companies with a high degree of <i>strategic purchasing</i> (<i>strategic focus, strategic involvement of the purchasing function and the status and visibility of the purchasing professionals</i>) achieve better <i>supply integration</i> (<i>relational, process, information and cross-organizational team integration</i>). 2) The effect of <i>strategic purchasing</i> on <i>buying firms' financial performance improvement</i> was found to be marginally significant, while improvements of different operational measures were also significant (with exception of cost and flexibility indicators).
SÁNCHEZ-RODRÍGUEZ (2009)	This study shows that 1) <i>strategic purchasing</i> has a direct influence on <i>supplier development</i> and <i>purchasing performance</i> , 2) a positive relationship between <i>supplier development</i> and <i>purchasing performance</i> exists and 3) there is an indirect impact of <i>strategic purchasing</i> on <i>purchasing performance</i> partially mediated through <i>supplier development</i> .
SCHOENHERR/MABERT (2011)	This study explores the causal linkages between the <i>buyer's objectives in determining procurement strategy</i> , the <i>environmental conditions</i> that may influence this strategy as antecedents, and the subsequent <i>performance impact</i> within the context of multi-item requests for quotation. The results confirmed that 1) there are buyer groups who pursue PSM strategies with different levels of strategic emphasis (i.e., a three-cluster solution of <i>strategic groups of strategists, opportunists, and responders</i> prevails). 2) A greater level of strategic emphasis used in PSM strategies explains a large amount of variation in <i>buyer's perceived performance</i> (<i>strategic groups of strategists</i> achieve better performance than <i>opportunists and responders</i>).
SHAO ET AL. (2012)	The findings supported that 1) <i>activity alignment</i> between buyers and strategic suppliers has a positive impact on the (intermediate) <i>strategic supply performance outcomes</i> constructs (particularly on working capital reduction). 2) The <i>objective alignment</i> showed a more significant impact on the four PSP levers than <i>activity alignment</i> . 3) The <i>financial BP</i> is influenced by PSP in terms of <i>cost savings</i> (<i>strongest impact</i>), <i>contribution to sales increase</i> and <i>reduction of supply risks</i> (but <i>working capital reduction</i> did no significant impact on BP).
SU (2013)	The results indicate that <i>strategic sourcing</i> significantly impacts <i>buyer-supplier relationships</i> , <i>supplier evaluation</i> , and <i>sourcing performance</i> of buying companies. The study also shows that <i>supplier evaluation</i> significantly influences <i>buyer-supplier relationship</i> .
SU/GARGEYA (2012b)	This study examines how <i>strategic sourcing</i> and <i>sourcing capability</i> impact <i>firm performance</i> . The results proposed that 1) <i>strategic sourcing</i> leads to greater emphasis on <i>sourcing capability</i> and positively impacts <i>firm performance</i> . Quite contrary to expectations, the path between <i>sourcing capability</i> and <i>firm performance</i> was not strongly supported.

Darstellung 11: Zusammenfassende Präsentation der empirischen Befunde

Horizontale Strategie-Alignment-Dimension

Dieser *Stream of Research* erforscht die Frage, inwiefern ein HA zwischen PSM und anderen Funktionsbereichen die Performance eines Unternehmens positiv beeinflusst. PAGELL/ KRAUSE (2002) zeigten diesbezüglich auf, dass eine verbesserte Abstimmung von Produktions- und Beschaffungsabteilung zu positiven Performance-Effekten auf *plant-level* führt. Mit sinkender Unsicherheit ist die Relation zwischen dem *strategic consensus*- (cross-funktionale Abstimmung bzgl. der strategischen Prioritäten) und dem Performance-Konstrukt allerdings weitaus komplexer. FOERSTL ET AL. (2013) erfassten bereichsübergreifende Abstimmungsmaßnahmen des Einkaufs als *mediating construct* und wiesen nach, dass eine stärkere *cross-functional integration* (und *functional coordination*) die *purchasing performance* positiv beeinflusst und eine verbesserte *purchasing performance* wiederum positiv auf die *firm performance* wirkt. GOH/ LAU/ NEO (1999) untersuchten ebenfalls ein horizontales Alignment-Konstrukt namens *purchasing function's integration with other functions*, welches unterschiedliche Funktionsbereiche wie *legal, research and development, advertising/ marketing, engineering* und *accounting/ finance* umfasst. Sie stellten dabei zum einen fest, dass die Beziehung zwischen *importance of purchasing* und *purchasing's integration* zwar nicht signifikant ist, aber ein horizontales Alignment in Form von regelmäßigen, funktionsübergreifenden Besprechungen die *business performance* verbessert. In Kapitel 3.2 wurde darüber hinaus eine

Reihe von Texten identifiziert,¹¹¹ die horizontale Alignment-Kennzahlen integrativ unter übergeordneten Konstrukten subsumieren (vgl. die folgenden Abschnitte für diesbezügliche Ergebnisse).

Lieferantenbezogene Strategie-Alignment-Dimension

Dieser *Research Stream* adressiert das LA, wobei sich jedoch lediglich die Studie von SHAO ET AL. (2012) ausschließlich auf lieferantenbezogene Fragestellungen bezieht. Dortige Ergebnisse zeigen auch nachdrücklich auf, dass eine stärkere Abstimmung mit strategischen Lieferanten alle Elemente der *strategic supply performance outcomes* positiv beeinflusst (insbesondere zu einer *reduction of working capital* führt), wobei die statistischen Tests stärkere Effekte für das *objective alignment* (im Vergleich zum *activity alignment*) aufzeigen. Darüber hinaus bestätigte sich, dass die intermediären *strategic supply performance outcomes* (mit Ausnahme der *reduction of working capital*) positiv auf die *corporate business performance outcomes* wirken. In Kapitel 3.2 wurden darüber hinaus eine Reihe von Texten identifiziert,¹¹² die lieferantenbezogene Alignment-Kennzahlen integrative unter übergeordnete Konstrukte subsumieren, wenn gleich die statistischen Untersuchung zum Teil auch separat erfolgen. So wiesen CARR/PEARSON (1999) nach, dass *cooperative buyer-supplier relationships* und *effective communication* einen positiven Einfluss auf die *financial performance* haben. SU (2013) konzeptionalisiert den Lieferanteneinbezug ebenfalls durch ein mediiertes *buyer-supplier relationship*-Konstrukt und konnte dabei im Unterschied zu CARR/PEARSON (1999) allerdings keinen positiven Effekt des horizontalen *buyer-supplier* Alignment-Konstrukts auf die *sourcing performance* verifizieren. CARR/PEARSON (2002) wiesen ebenso nach, dass das integrative *purchasing/ supplier involvement*-Konstrukt direkt nutzenstiftend auf das *strategic purchasing*-Konstrukt einwirkt, und damit indirekt die *financial performance* positiv beeinflusst. Die Befunde von LAWSON ET AL. (2009) sprechen dafür, dass das lieferantenbezogene Alignment-Konstrukt *supplier integration* die Beziehung zwischen *strategic purchasing* und *buyer performance* mediiert. Das integrative *purchasing competence*-Konstrukt von NARASIMHAN ET AL. (2001) mit seinen lieferantenbezogenen Alignment-Indikatoren hat ebenfalls eine signifikant positive Wirkung auf die *total quality management performance* und *customer satisfaction*, aber keinen Effekt auf den *market share*. PAULRAJ/CHEN (2007) ziehen zur Konzeptualisie-

¹¹¹ Vgl. BAIER ET AL. (2008); CARR/PEARSON (2002); CHIANG ET AL. (2012); COUSINS ET AL. (2006); DAS/ NARASIMHAN (2000); KERN ET AL. (2011); LAWSON ET AL. (2009); NARASIMHAN/ DAS (2001); NARASIMHAN ET AL. (2001); PAULRAJ/CHEN (2007); SU/ GARGEYA (2012b).

¹¹² Vgl. CARR/PEARSON (1999, 2002); KERN ET AL. (2011); LAWSON ET AL. (2009); NARASIMHAN ET AL. (2001); PAULRAJ/CHEN (2007); SHAO ET AL. (2012); SU (2013).

zung ihres übergeordneten *strategic supply management*-Konstrukts die lieferantenbezogenen Alignment-Komponenten *long-term relationship orientation*, *inter-firm communication* und *supplier integration* heran, wobei die Performance-Implikation der einzelnen Dimensionen allerdings nicht separat untersucht wird. KERN ET AL. (2011) zeigen, dass die *purchasing management competence* einen signifikant positiven Einfluss auf unterschiedliche Performancegrößen hat. Interessanterweise stellen die *Suppliers* dabei relativ gesehen die Anspruchsgruppe mit dem größten Performance-Impact dar.

Vertikale Strategie-Alignment-Dimension

Wie in Kapitel 3.2 herausgearbeitet, lassen sich die VA-Studien weiter differenzieren. So argumentiert die 1. Gruppe, dass die integrative Einbindung des Einkaufs in die strategische (Unternehmens-)Planung per se eine positive Wirkung entfaltet. Aus diesem Grund wird die Implementierung fortschrittlicher Beschaffungspraktiken prinzipiell erleichtert. Die Großzahl der hier zugeordneten Studien verwendet infolgedessen auch das Konstrukt *strategic purchasing*.¹¹³ CARR/ SMELTZER (1999b) zeigten, dass *strategic purchasing* nicht nur positiv mit *supplier responsiveness*, *changes in the supplier market* und *supplier communication* in Beziehung steht, sondern vor allem auch die *firm performance* direkt beeinflusst. CARR/ PEARSON (1999) bestätigten in ihrer Untersuchung (direkte und indirekte) Effekte von *strategic purchasing* auf *supplier evolution systems*, *buyer-supplier relationships* und die *financial performance*. CARR/ PEARSON (2002) zeigten, dass *purchasing/ supplier involvement* eine direkte Wirkung auf das Konstrukt *strategic purchasing* hat und dieses wiederum die finanzielle Performance positiv beeinflusst. Im Unterschied zur ersten Studie, die lediglich für große Unternehmen einen positiven Effekt von *strategic purchasing* auf die *firm performance* nachweisen konnte, bestätigte die zweite Studie diesen Zusammenhang auch für kleine und mittlere Unternehmen. Sich auf das *strategic purchasing*-Konstrukt von CARR/ PEARSON (1999) beziehend, untersuchen LAWSON ET AL. (2009) den Effekt von *strategic purchasing* auf *inter-organizational supply management practices* (*socialization mechanisms*, *supplier integration* und *supplier responsiveness*) und die daraus resultierende Performancewirkung. Die Ergebnisse sprechen dafür, dass *strategic purchasing* einen signifikant positiven indirekten Einfluss auf die *buyer performance* hat, der durch *supplier integration* mediiert wird. SÁNCHEZ-RODRÍGUEZ (2009) konnte direkte Effekte von *strategic purchasing* auf *supplier development* und *purchasing performance* nachweisen

¹¹³ *Strategic purchasing* wird daher bspw. in den Studien von CARR/ PEARSON (1999, 2002), CARR/ SMELTZER (1999b) und CHEN/ PAULRAJ/ LADO (2004) als “the means to achieve alignment between the daily activities and strategies of the functional PSM level and the strategic plans at the corporate level” konzeptionalisiert.

sowie eine indirekte Wirkung von *strategic purchasing* auf die *purchasing performance* mediiert durch *supplier development* verifizieren. In einer weiteren Studie fanden CHEN/PAULRAJ/LADO (2004) heraus, dass eine signifikant positive Beziehung zwischen *strategic purchasing* und *supply management (communication, limited number of suppliers und long-term relationship orientation)* besteht. Außerdem waren die Pfade zwischen *long-term orientation* und *customer responsiveness*, zwischen *communication* und *customer responsiveness* sowie zwischen *customer responsiveness* und *financial performance* signifikant (die Relation von *limited number of supplier* und *customer responsiveness* demgegenüber jedoch nicht). PAULRAJ/CHEN (2005b) untersuchten den Einfluss von *strategic purchasing* auf *supply management* und von *supply management* auf die *dyadic quality performance*. In Übereinstimmung mit der Untersuchung von CHEN/PAULRAJ/LADO (2004) wird bestätigt, dass *strategic purchasing* alle drei Elemente der *supply management practices (communication, supply base reduction und long-term relationship)* positiv beeinflusst. Die *buyer quality performance* wird dann allerdings nur von der *communication* positiv beeinflusst. Die darauf folgende Studie von PAULRAJ ET AL. (2006) machte deutlich, dass höhere Grade von *strategic purchasing* zu einer besseren *supply integration* führen. Die Effekte von *strategic purchasing* auf die *financial performance* waren allerdings nur marginal, während Verbesserungen auf die operationalen Kennzahlen mit Ausnahme der Kosten- und Flexibilitätsindikatoren signifikant waren. BERNARDES/ZSIDISIN (2008) untersuchten den Performanceeinfluss des Konstrukts *strategic supply management*¹¹⁴ auf die *customer responsiveness* und zwar indirekt über die zwei zwischengeschalteten Konstrukte *network relational embeddedness* und *network scanning*. Die Ergebnisse machten deutlich, dass ein höherer Grad an *strategic supply management* die *customer responsiveness* verbessert und zwar direkt über *scanning their supply base network* und indirekt über *relational embeddedness*. In einer darauf aufbauenden Untersuchung erforschte BERNARDES (2010) die Beziehung zwischen *strategic purchasing*, *network-relational embeddedness*, *network-shared cognition* und *customer responsiveness*. Die Ergebnisse bestätigten abermals die bereits zuvor erkannte positive Relation zwischen *strategic purchasing* und *relational embeddedness*. Darüber hinaus konnte ein positiver Einfluss von *strategic purchasing* auf *network-shared cognition* und von *network-shared cognition* auf die *customer responsiveness* nachgewiesen werden. SU/GARGEYA (2012b) zeigten, dass *strategic sourcing* –

¹¹⁴ An dieser Stelle sei nochmals erwähnt, dass das *strategic supply management* als der “level of strategic focus and strategic involvement of PSM” definiert wurde und auf den Items von CARR/PEARSON (1999), CARR/SMELTZER (1999b) und CHEN/PAULRAJ/LADO (2004) basiert.

erstellt auf Basis der Items von CARR/ PEARSON (1999, 2002), CARR/ SMELTZER, (1999a, 2000) und CHEN/ PAULRAJ/ LADO (2004) – und *sourcing capability* die *firm performance* positiv beeinflussen. SU (2013) zeigte ebenfalls, dass *strategic sourcing* – wiederum sehr ähnlich zum *strategic purchasing*-Konstrukt von CARR/ PEARSON (2002) – positiv auf die Konstrukte *buyer-supplier relationships*, *supplier evaluation* und *sourcing performance* wirkt. CHIANG ET AL. (2012) fokussierten das Konstrukt „strategic sourcing“, welches neben *strategic purchasing* weitere Komponenten umfasst und untersuchten dessen Auswirkungen auf die *firm's strategic flexibility* und die *firm's supply chain agility*. Von entscheidender Bedeutung ist hierbei, dass dadurch die *firm's (financial) performance* gesteigert wird und sich ferner ebenfalls eine direkte Auswirkung auf die *purchasing performance* konstatieren lässt. Während die zuvor genannten Artikel ein *strategic purchasing*-Konstrukt verwenden, ziehen NARASIMHAN/ DAS (2001) ein verwandtes *purchasing integration*-Konstrukt heran und erforschten dessen Beziehung zu den *purchasing practices* (*supply base leveraging*, *buyer-supplier relationship development* und *supplier performance evaluation*) und der *MP*. Die statistischen Auswertungen zeigen, dass *purchasing integration* die Beziehung zwischen *purchasing practices* und der *MP* positiv moderiert.

Eine 2. Gruppe von Studien nutzt das holistische Konzept der ***purchasing competence***, welches als “the capability to structure, develop, and manage a buying firm’s supply base in alignment with the manufacturing priorities of the firm”¹¹⁵ definiert und über die Dimensionen *supply base optimization*, *buyer-supplier relationship development*, *supplier capability auditing* und *purchasing integration* operationalisiert ist. Die Ergebnisse von DAS/ NARASIMHAN (2000) zeigen, dass *purchasing competence* einen signifikant positiven Einfluss auf die *MP* hat. Interessanterweise steht die *purchasing integration* (konzeptionalisiert als eine Komponente der *purchasing competence*) zudem mit allen Dimensionen der *MP* in Beziehung. Das hierarchiespezifische *purchasing management competence*-Konstrukt von KERN ET AL. (2011) wirkt ebenfalls signifikant positiv auf die *operational performance* und dabei besonders stark auf die *cost performance*. GONZÁLEZ-BENITO (2007) adaptiert das Konstrukt der *production competence* und konstruiert ein alternatives *purchasing competence*-Konzept mit zwei Fit-Ebenen: *strategic alignment* (*purchasing integration* als Fit zwischen *business strategy* und den *purchasing strategic objectives/competitive priorities*) und *purchasing efficacy* (Fit zwischen *purchasing strategic objectives/competitive priorities* und *purchasing capabilities*). Die

¹¹⁵ Vgl. Das, A.; Narasimhan, R., *Purchasing*, 2000, S. 18.

Ergebnisse verdeutlichen, dass *purchasing efficacy* einen positiven Effekt auf die *commercial* und *financial business performance* hat (und zwar für beide *purchasing efficiency indices*). Die Hypothese, dass *purchasing's strategic integration* die Beziehung zwischen *purchasing efficacy* und *BP* positiv moderiert, wurde allerdings nur für einen Index (PE_2) bestätigt. Zudem müssen beide Fit-Dimensionen unterstützt werden, damit der Einkauf optimal zur *firm performance* beitragen kann. BAIER ET AL. (2008) differenzieren Maßnahmen in ein *strategic alignment* (Verknüpfung von Unternehmensstrategie und Beschaffungsstrategie) und *purchasing efficacy* (Abstimmung von konkreten *purchasing practices* mit *purchasing strategy/ competitive priorities*). Damit wird der Empfehlung von GONZÁLEZ-BENITO (2007) folgend, der Fokus auf *purchasing practices* (anstatt wie bisher auf *purchasing capabilities*) gelegt und damit das Konstrukt *purchasing competence* validiert. Bezüglich des *strategic alignment* kann festgehalten werden, dass die idealtypischen Profile der *purchasing competitive priorities* sich gemäß der *business strategy types* unterscheiden lassen und Abweichungen von den idealtypischen *purchasing competitive priority' profiles* zu sinkender *financial performance* führen.¹¹⁶ Bezüglich der *purchasing efficacy* bestätigen die Resultate, dass Divergenzen vom idealtypischen *purchasing practices*-Profil wiederum mit niedriger *financial performance* verbunden sind.

Ein 3. Forschungscluster thematisiert das Konstrukt *strategic supply management* (*strategic purchasing* ist ein Bestandteil dieses Konstrukts) und untersucht diesbezügliche Performance-Effekte. PAULRAJ/ CHEN (2005a) zeigten, dass *strategic supply management* die *buyer's operational performance* signifikant positiv beeinflusst. PAULRAJ/ CHEN (2007) erforschten in einer weiteren Studie den Performance-Impact des *strategic supply management*-Konstrukts (konzeptionalisiert über die fünf Komponenten *strategic purchasing, long-term relationship orientation, interfirm communication* sowie – im Unterschied zu PAULRAJ/ CHEN (2005a) – auch mit den Bestandteilen *cross-organizational teams* und *supplier integration*). Die Ergebnisse belegen, dass sich mit zunehmender Leistungsfähigkeit des Lieferanten auch die eigene Performance verbessert. Über einen positiven Einfluss von *strategic supply management* auf die *buyer's operational performance* hinausgehend wurde auch ein positiver Effekt der *supplier performance* auf die *buyer's performance* nachgewiesen.

¹¹⁶ High-performing cost leaders prioritize cost reduction over quality improvement and innovation, while successful differentiators place emphasis on quality aspects and to a lesser extent on innovation (vgl. hierzu Baier, C.; Hartmann, E.; Moser, R., Alignment, 2008, S. 46).

Sonder-Konstrukte zum Strategie-Alignment

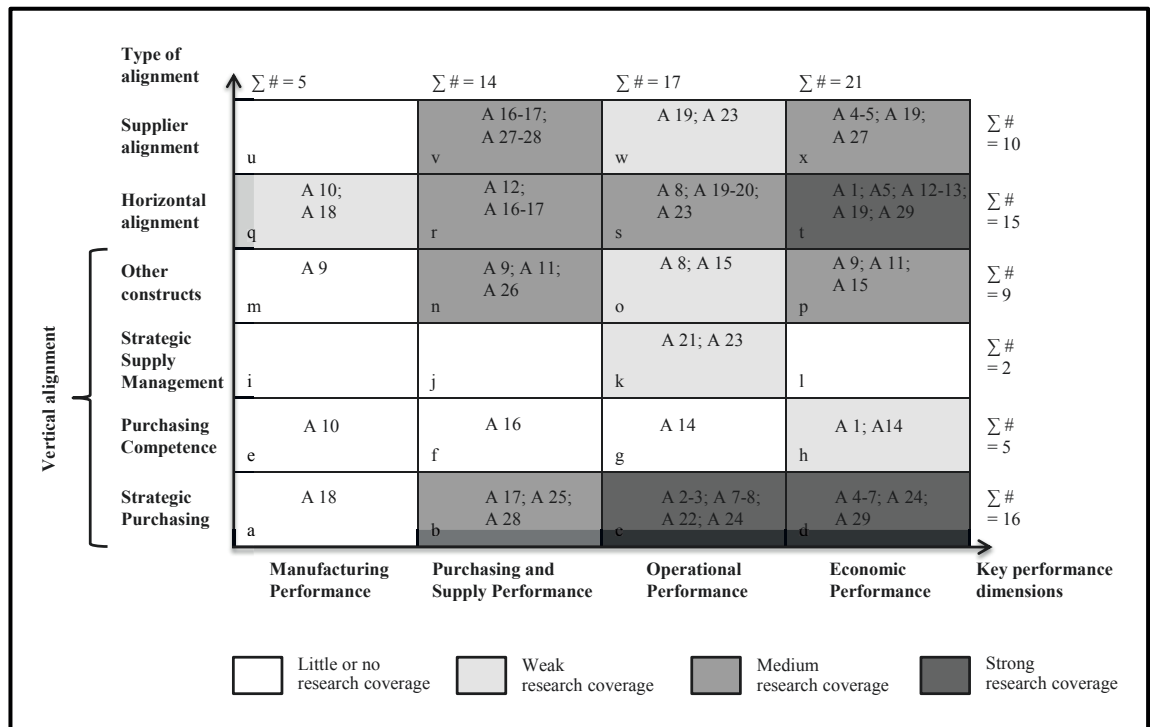
Die hier subsumierten Studien untersuchen Fragen des Strategie-Alignments anhand von besonderen Konstrukten, die sich keiner der zuvor genannten Forschungsströmungen zuordnen lassen. Im Unterschied zu seiner ersten Studie erfasst GONZÁLEZ-BENITO (2010) die Beschaffungsstrategie durch die relative Wichtigkeit der vier Wettbewerbsfaktoren Kosten, Qualität, Zeit und Flexibilität (*profile of generic competitive objectives*). Die Befunde lassen darauf schließen, dass die *commercial and financial business performance* durch eine relativ stärkere Gewichtung der *flexibility* und einer weniger starken Gewichtung der *logistics efficiency* (*reductions in stock levels* und *PSM prices*) gesteigert werden kann. Top-Performers kombinieren *quality, dependability* und *flexibility* als primäre Ziele und stufen die relative Wichtigkeit von *cost reductions* herunter. SCHOENHERR/ MABERT (2011) untersuchten die Beziehung zwischen *buyer's objectives in determining PSM strategy*, diesbezügliche Einflussgrößen und den Performance-Impact im Kontext von *multi-item requests for quotation*. Die Ergebnisse legen nahe, dass eine stärkere strategische Ausrichtung in der Festlegung der PSM-Strategien einen großen Anteil der Variation in der *buyer's perceived performance* erklärt. DAVID ET AL. (2002) zeigten, dass eine stärkere Kongruenz von der *product competitive strategy* und *organizational design characteristics* innerhalb der Beschaffungsabteilung den *ROA* verbessert. Unternehmen mit einer *cost strategy* sollten eine zentrale Organisation favorisieren, während Unternehmen mit einer *differentiation strategy* ihre Performance mit zunehmender Dezentralisierung verbessern können. Dass zunehmende Kongruenz auch zu einer höheren *operational efficiency*¹¹⁷ führt, gilt lediglich für bestimmte Bedingungen. COUSINS ET AL. (2006) eruierten unterschiedliche *patterns of purchasing function configuration* und analysierten den Einfluss auf die *organisational performance*. Das identifizierte Cluster *strategic purchasers* stellte die fortschrittlichste *PSM configuration* dar und erreicht die höchsten *performance outcomes*. CHIANG ET AL. (2012) zeigten, dass ihr *strategic sourcing*-Konstrukt (mit den Komponenten *strategic purchasing, internal integration, information sharing* und *supplier development*) die *firm's strategic flexibility* (mediator) und *supply chain agility* positiv beeinflusst.

Zusammenfassende Präsentation der zentralen analytischen Befunde

Nach dem in Kapitel 5.2 eine Analyse entlang der wichtigsten *Research Streams* durchgeführt wurde, werden nun die unabhängige und abhängige Variablen und Konstrukte

¹¹⁷ Vgl. David, J. S. et al., Congruence, 2002, S. 877 ff. *Purchasing (operational) efficiency* besteht hierbei aus den drei Messgrößen *purchasing amount per dollar of purchasing operating expenses, purchase amount per employee* und *inventory turnover*.

systematisch zusammengeführt und in Beziehung gesetzt (vgl. die Matrix der Darstellung 12). Grundsätzlich zeigt die präzise Auswertung der formulierten und statistisch überprüften Hypothesen in Anlage 5, dass zwar lediglich 18 der insgesamt 127 überprüften Hypothesen einer statistischen Überprüfung nicht standhielten. Dennoch darf dieser relativ niedrige Anteil (unter 15 %) keinesfalls darüber hinweg täuschen, dass eine tiefergehende wissenschaftliche Auseinandersetzung dringend notwendig ist und definitiv neue, sicherlich sehr interessante Erkenntnisse zu erwarten sind.



Darstellung 12: Relationale Übersicht von Strategie-Alignment und Performance¹¹⁸

Empfehlung 15: Es wird empfohlen, konkrete *relationale Forschungslücken* anhand von Darstellung 12 abzuleiten. Je heller die Zellen-Schattierung in dieser zusammenfassende Übersicht ausfällt, desto größere Aufmerksamkeit sollte der entsprechenden Relation in Zukunft zu Teil werden.

Darüber hinaus können unter Rekurs auf den integrativen Bezugsrahmen der Darstellung 10 und unter Beachtung der Auswertungen der Anlage 3 *kontextuale Forschungslücken* abgeleitet werden. Denn die Ergebnisse verifizieren zweifelsfrei, dass Kontext-

¹¹⁸ Eigene Darstellung (Anmerkung: $\Sigma \#$: Anzahl an Artikeln pro Zeile und Spalte) und Zuordnung nach folgendem Schema: A 1 = BAIER ET AL. (2008); A 2 = BERNARDES (2010); A 3 = BERNARDES/ ZSIDISIN (2008); A 4 = CARR/ PEARSON (1999); A 5 = CARR/ PEARSON (2002); A 6 = CARR/ SMELTZER (1999b); A 7 = CHEN/ PAULRAJ/ LADO (2004); A 8 = CHIANG ET AL. (2012); A 9 = COUSINS ET AL. (2006); A 10 = DAS/ NARASIMHAN (2000); A 11 = DAVID ET AL. (2002); A 12 = FOERSTL ET AL. (2013); A 13 = GOH/ LAU/ NEO (1999); A 14 = GONZÁLEZ-BENITO (2007); A 15 = GONZÁLEZ-BENITO (2010); A 16 = KERN ET AL. (2011); A 17 = LAWSON ET AL. (2009); A 18 = NARASIMHAN/ DAS (2001); A 19 = NARASIMHAN ET AL. (2001); A 20 = PAGELL/ KRAUSE (2002); A 21 = PAULRAJ/ CHEN (2005a); A 22 = PAULRAJ/ CHEN (2005b); A 23 = PAULRAJ/ CHEN (2007); A 24 = PAULRAJ ET AL. (2006); A 25 = SÁNCHEZ-RODRÍGUEZ (2009); A 26 = SCHOENHERR/ MABERT (2011); A 27 = SHAO ET AL. (2012); A 28 = SU (2013); A 29 = SU/ GARGEYA (2012b).

variablen wie Moderator-, Mediator- und Kontrollgrößen in den empirischen Untersuchungen bei weitem nicht in ausreichendem Maße methodisch erfasst wurden. So wurden *mediating variables* in 18 Artikeln erforscht, während der Einfluss von *control variables* lediglich in 8 von insgesamt 29 Studien untersucht wurde.¹¹⁹ Den *moderator variables* wurde mit nur 3 Artikeln eine noch geringere Bedeutung beigemessen.¹²⁰

Empfehlung 16: In Zukunft sollten insbesondere Kontextfaktoren wie moderierende Variablen/ Konstrukte wesentlich konsequenter einbezogen und stärker berücksichtigt werden.¹²¹

6 Entwicklung des multi-dimensionalen Strategie-Alignment-Index

6.1 Grundidee des Alignment-Index und Ableitung der Hypothesen

Wie Anlage 3 und Anlage 5 zeigen, wurde die Verbindung von Zielen und Strategien im PSM bisher primär isoliert, d. h. lediglich unter Berücksichtigung einer ausgewählten Alignment-Dimension, analysiert. Dies erscheint im Sinne einer langfristigen Perspektive und holistischen Betrachtung wichtiger strategischer Aktivitäten im PSM nicht ausreichend. Wie in Kapitel 3 erläutert und im konzeptionellen Bezugsrahmen der Darstellung 10 abgebildet, bedarf es einer integrativen Zusammenführung und Formulierung eines mehrdimensionalen PSMAI. Daher wird nun im Sinne einer ganzheitlichen, mehr-dimensionalen Betrachtung und gemäß des konzeptionellen Bezugsrahmens (Darstellung 10) ein innovativer Strategie-Alignment-Index entwickelt. Zur methodisch-strukturellen Entwicklung wird dabei neben den Alignment-Studien auf ausgewählte *supply chain integration* (SCI)¹²² bzw. *supply chain collaboration* (SCC) Publikationen Bezug genommen,¹²³ wobei insbesondere die multi-dimensionalen SCI-Studien¹²⁴ und der Fachbeitrag von SIMATUPANG/ SRIDHARAN (2005) einen wertvollen

¹¹⁹ Die am häufigsten eingesetzten Kontrollvariablen waren „SBU/ firm/ plant size“ und „industry“.

¹²⁰ Vgl. auch Zimmermann, F.; Foerstl, K., Meta-Analysis, 2014, S. 1-34.

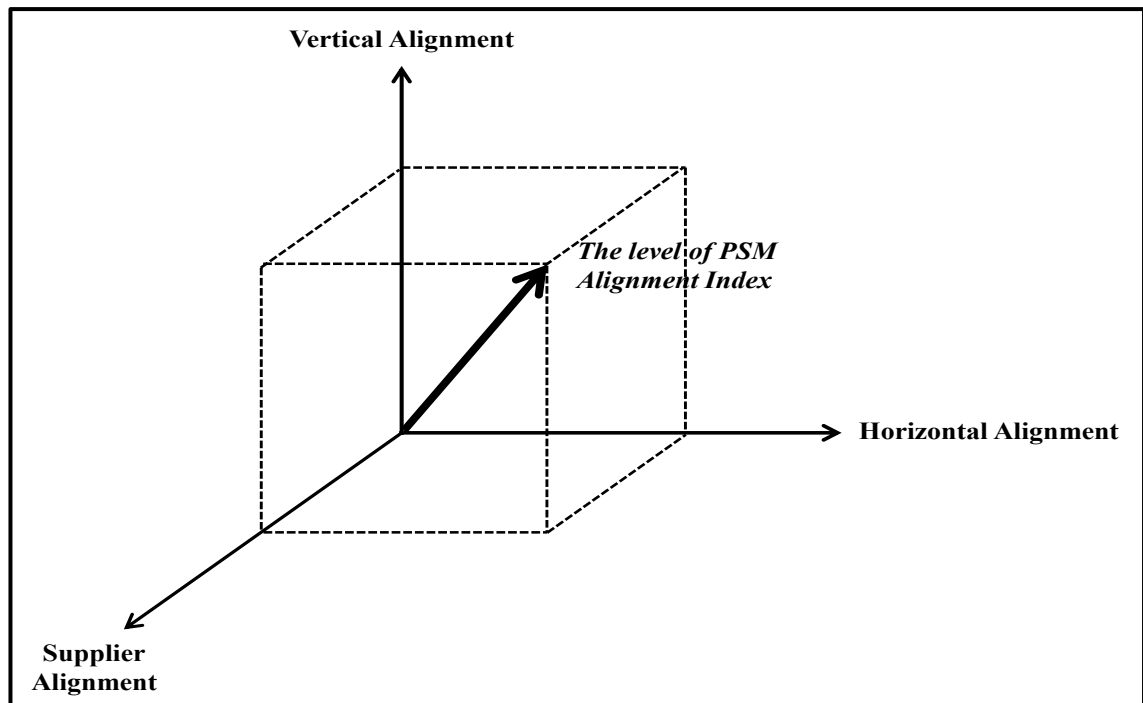
¹²¹ In den aktuellen Publikationen von ZHANG ET AL. (2011), HARTMANN/ KERKFELD/ HENKE (2012) und SHAO ET AL. (2012) wurden ähnliche Forschungsempfehlungen abgeleitet. Für zukünftige diesbezügliche Forschungsbemühungen sei darüber hinaus auf die Arbeiten von Baron, R. M.; Kenny, D. A., *Distinction*, 1986, S. 1173-1182; Goldsby, T. J. et al., *Measurement and Moderation*, 2013, S. 109-116 verweisen.

¹²² Vgl. zu unterschiedlichen Definitionen des SCI-Begriffs Leuschner, R.; Rogers, D. S.; Charvet, F. F., *Meta-Analysis*, 2013, S. 34; Flynn, B. B.; Huo, B.; Zhao, X., *Impact*, 2010, S. 59.

¹²³ Hier konnten die Autoren dieser Arbeit auf folgende SCI-SLRs zurückgreifen: Fabbe-Costes, N.; Jahre, M., *Integration*, 2007, S. 835-855; Fabbe-Costes, N.; Jahre, M., *Review*, 2008, S. 130-154; Leuschner, R.; Rogers, D. S.; Charvet, F. F., *Meta-Analysis*, 2013, S. 34-57.

¹²⁴ Multi-dimensionale SCI-Studien berücksichtigen im Unterschied zu ein-dimensionalen SCI-Studien verschiedene „layers“ und/ oder mehrere „scopes of integration“ (vgl. Fabbe-Costes, N.; Jahre, M., *Integration*, 2007, S. 840 f.). Explizit wurden folgende 17 Artikel berücksichtigt: BAGCHI ET AL. (2005); COUSINS/ MENGUC (2006); FORZA/ ROMANO/ VINELLI (2000); GIMÉNEZ/ VENTURA (2003, 2005); HERTZ (2001); HUI (2004); MOLLENKOPF/ DAPIRAN (2005a, b); NARASIMHAN/ KIM (2002); RODRIGUES/ STANK/ LYNCH (2004); SAHIN/ ROBINSON JR. (2005); STANK/ KELLER/ CLOSS (2001); SWINK/ NARASIMHAN/ WANG (2007); VACHON/ KLASSEN (2006); VICKERY ET AL. (2003); WISNER (2003).

Input versprechen.¹²⁵ Der *PSMAI* lässt sich anhand der drei Dimensionen (1) *Vertikales Alignment* (VA), (2) *Horizontales Alignment* (HA) und (3) *Lieferantenbezogenes Alignment* (LA) charakterisieren, so dass sich das *Multi-dimensionale Alignment* als Funktion $PSMAI = f(VA, HA, LA)$ beschreiben lässt (vgl. hierzu auch Darstellung 13).



Darstellung 13: Konzept des multi-dimensionalen Strategie-Alignment-Indexes¹²⁶

Im Folgenden können nun die einzelnen Dimensionen konkretisiert und die zugehörigen Hypothesen vorgestellt werden. Das VA beschreibt die strategische Ausrichtung („strategische Charakter“) der Beschaffungsabteilung per se sowie die Verknüpfung der abgeleiteten Strategien und Maßnahmen mit übergeordneten Strategie-Konstrukten.¹²⁷ Vor diesem Hintergrund lässt sich die erste elementare Hypothese formulieren:

Hypothese 1: Je stärker das VA, desto positiver sind die zu erwartenden Performanceeffekte.

- **Hypothese 1a:** Je stärker das VA, desto positiver sind die zu erwartenden Effekte auf die *Economic Performance*.
- **Hypothese 1b:** Je stärker das VA, desto positiver sind die zu erwartenden Effekte auf die *Operational Performance*.
- **Hypothese 1c:** Je stärker das VA, desto positiver sind die zu erwartenden Effekte auf die *Purchasing and Supply Performance*.

¹²⁵ Vgl. Simatupang, T. M.; Sridharan, R., *Measure*, 2005, S. 44-62 sowie Simatupang, T. M.; Sridharan, R., *Supply Chain*, 2002, S. 19; Simatupang, T. M.; Wright, A. C.; Sridharan, R., *Applying*, 2004, S. 57.

¹²⁶ In Anlehnung an Simatupang, T. M.; Sridharan, R., *Measure*, 2005, S. 47.

¹²⁷ Vgl. González-Benito, J., *Business Performance*, 2007, S. 902.

Das HA umfasst die koordinative Abstimmung auf cross-funktionaler Ebene, wobei diese bereichsübergreifende Konvergenz eine verbesserte inter-organisationalen Kollaboration, ein tieferes Verständnis für die Anforderungen der jeweiligen Abteilungen, eine Reduktion von Konflikten,¹²⁸ die Generierung neuer Werte¹²⁹ sowie eine höhere Effizienz bspw. in (Neu-)Produktentwicklungen begünstigt.¹³⁰ Vor diesem Hintergrund lässt sich die zweite grundlegende Hypothese formulieren:

Hypothese 2: Je stärker das HA, desto positiver sind die zu erwartenden Performanceeffekte.

- **Hypothese 2a:** Je stärker das HA, desto positiver sind die zu erwartenden Effekte auf die *Economic Performance*.
- **Hypothese 2b:** Je stärker das HA, desto positiver sind die zu erwartenden Effekte auf die *Operational Performance*.
- **Hypothese 2c:** Je stärker das HA, desto positiver sind die zu erwartenden Effekte auf die *Purchasing and Supply Performance*.

Das LA bezieht sich auf die Harmonisierung von Strategien und Zielen mit der Lieferantenbasis. So können über verbesserte interorganisationale Abstimmungs- und Kommunikationsprozesse sowie durch Harmonisierungsaktivitäten (z. B. IT-Systeme, einheitliche Materialspezifikationen, gemeinsame Produktentwicklungen) sehr effektiv Transaktionskosten eingespart, Qualitätsprobleme reduziert, Lieferterminabweichungen gesenkt oder technologische Innovationen gefördert werden.¹³¹ Vor diesem Hintergrund lässt sich die dritte elementare Hypothese formulieren:

Hypothese 3: Je stärker das LA, desto positiver sind die zu erwartenden Performanceeffekte.

- **Hypothese 3a:** Je stärker das LA, desto positiver sind die zu erwartenden Effekte auf die *Economic Performance*.
- **Hypothese 3b:** Je stärker das LA, desto positiver sind die zu erwartenden Effekte auf die *Operational Performance*.
- **Hypothese 3c:** Je stärker das LA, desto positiver sind die zu erwartenden Effekte auf die *Purchasing and Supply Performance*.

Die zentrale, übergeordnete Hypothese dieser Arbeit besagt nun, dass ein hoher (integrativer) PSMAI-Wert, d. h. eine starke simultane Abstimmung und Harmonisierung der Ziele und Strategien auf allen drei Ebenen, auch zu hohen Performance-Outcomes

¹²⁸ Vgl. Goh, M.; Lau, G. T.; Neo, L., *Role*, 1999, S. 20.

¹²⁹ Vgl. Pearson, J. N.; Ellram, L. M.; Carter, C., *Purchasing*, 1996, S. 30-36; Carr, A. S.; Smeltzer, L. R., *Strategic Purchasing*, 1997, S. 199-207; Narasimhan, R. et al., *Examination*, 2001, S. 1-15; Trent, R. J.; Monczka, R. M., *Global Sourcing*, 2003, S. 607-629; Day, M.; Lichtenstein, S., *Strategic Supply Management*, 2006, S. 313-321.

¹³⁰ Vgl. Van Echtelt, F. E.; Wynstra, F.; Van Weele, A. J., *Development*, 2007, S. 644-661.

¹³¹ Vgl. Shao, J.; Moser, R.; Henke, M., *Supply Performance*, 2012, S. 29.

führt.¹³² Die bereits (insbesondere im Kontext größerer Unternehmen) empirisch nachgewiesenen isolierten Wirkungen bestärken sich gegenseitig, so dass in diesem Falle von einem *multi-dimensional alignment-leverage-effect* gesprochen werden kann.¹³³

Hypothese 4: Je höher der PSMAI, desto positiver sind die zu erwartenden Performance-Effekte.

6.2 Forschungsdesign und Operationalisierung der Konstrukte

Nachdem die Hypothesen 1-4 formuliert wurden, ist nun im nächsten Schritt das Forschungsdesign zu konkretisieren und die unterschiedlichen Konstrukte des PSMAI zu operationalisieren.¹³⁴ Die Definition der drei Dimensionen des PSMAI (inklusive der jeweiligen Items¹³⁵) erfolgt dabei unter Bezugnahme auf Kapitel 3 und Anlage 3 (unabhängige Variable). Die Festlegung der Measures und Selektion der Items resultiert angesichts der sehr breiten SLR-Datenbasis auf der Basis bereits verwandter, besonders valider/ signifikanter Items.¹³⁶ Darstellung 14 fasst das multidimensionale PSMAI-Konstrukt und zugehöriger Items zusammen (vgl. zudem auch Anlage 6 zur exakten Operationalisierung und Herkunft der eingesetzten Variablen).¹³⁷

¹³² Darüber hinaus dürfte die Unternehmensgröße („firm size“) als ein Moderator wirken (vgl. hierzu H2 bei Mikalef, P. et al., *Alignment*, 2014, S. 47); allerdings impliziert eine zunehmende Betriebsgröße nicht selten auch eine gewisse organisationale Inflexibilität, so dass die „delivery performance“ c.p. sinken sollte (vgl. Vachon, S.; Klassen, R. D., *Effects*, 2002, S. 218-30). Als weitere Moderator-Variable könnte auch der Produktlebenszyklus Berücksichtigung finden (vgl. Doha, A.; Das, A.; Pagell, M., *Cycle*, 2013, S. 470-498 sowie Das, A., *Theory Building*, 2001, S. 4174).

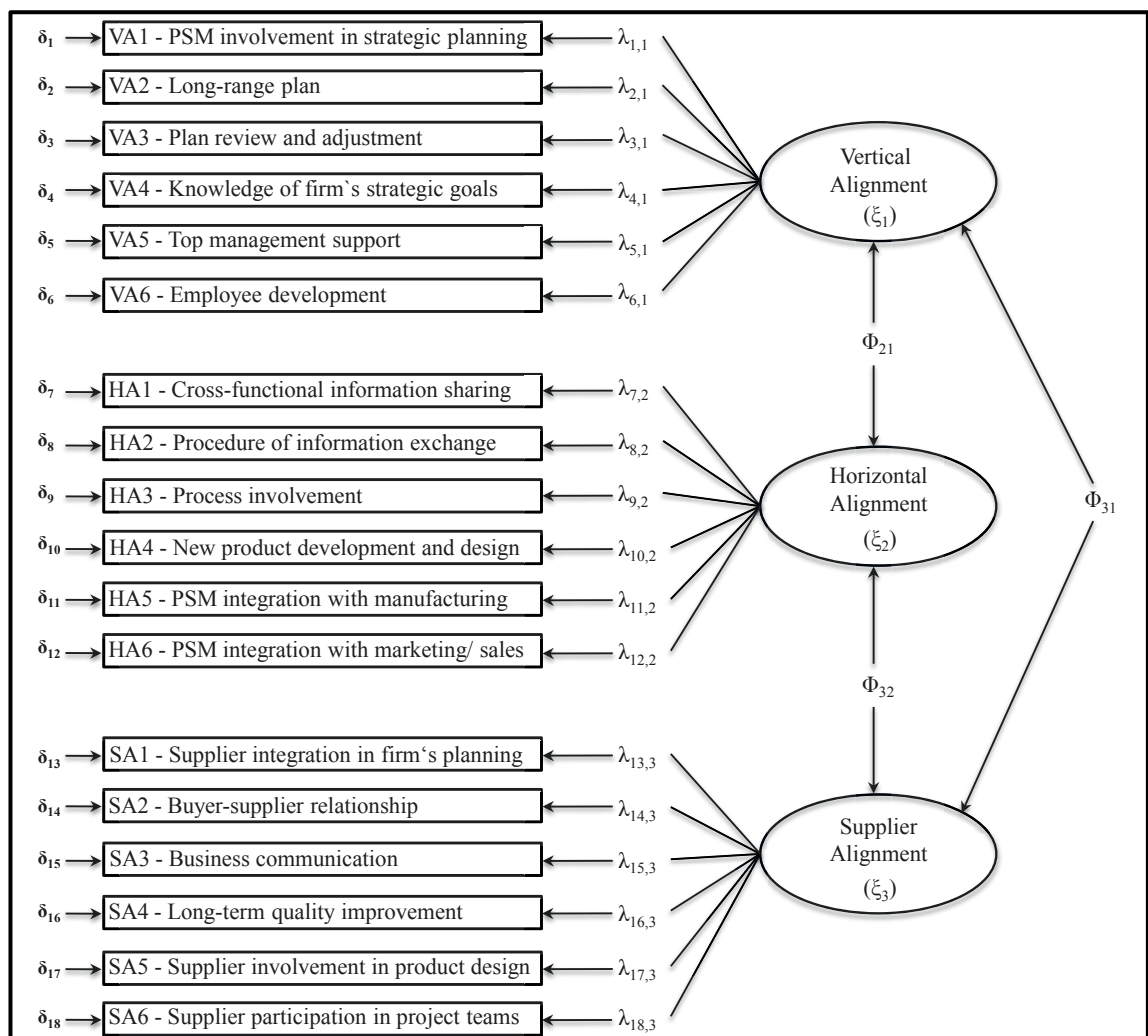
¹³³ Vgl. hierzu auch die Argumentation der in Fußnote 122 angeführten *supply chain integration* SLRs.

¹³⁴ Gemäß CHURCHILL (1979) sind zur Konstrukt-Entwicklung die folgenden vier Schritte (1) Konzeptionalisierung und (2) Entwicklung der Mess-Konstrukte, (3) Datenerhebung und (4) statistische Auswertung zu durchlaufen (vgl. Churchill Jr., G. A., *Measures*, 1979, S. 66 ff.). Die Datenerhebung (Schritt 3) und die Auswahl eines adäquaten statistischen Analyseverfahrens (Schritt 4) sind aktuell in Bearbeitung.

¹³⁵ Vgl. für Informationen zur Anzahl und Auswahl von Messgrößen Harvey, R. J.; Billings, R. S.; Nilan, K. J., *Survey*, S. 463; Hinkin, T. R., *Development*, 1998, S. 108 ff.

¹³⁶ So wurde die Selektion der Items des PSMAI unter Berücksichtigung des „t-Werts“/ Validität/ Faktorladungen und inhaltlich-sachlogischer Argumente sowie unter Einbezug der von CARR/ PEARSON (1999, 2002) entwickelten und bereits in zahlreichen weiteren Studien verwendeten (und infolgedessen sehr robusten) Messgrößen vorgenommen.

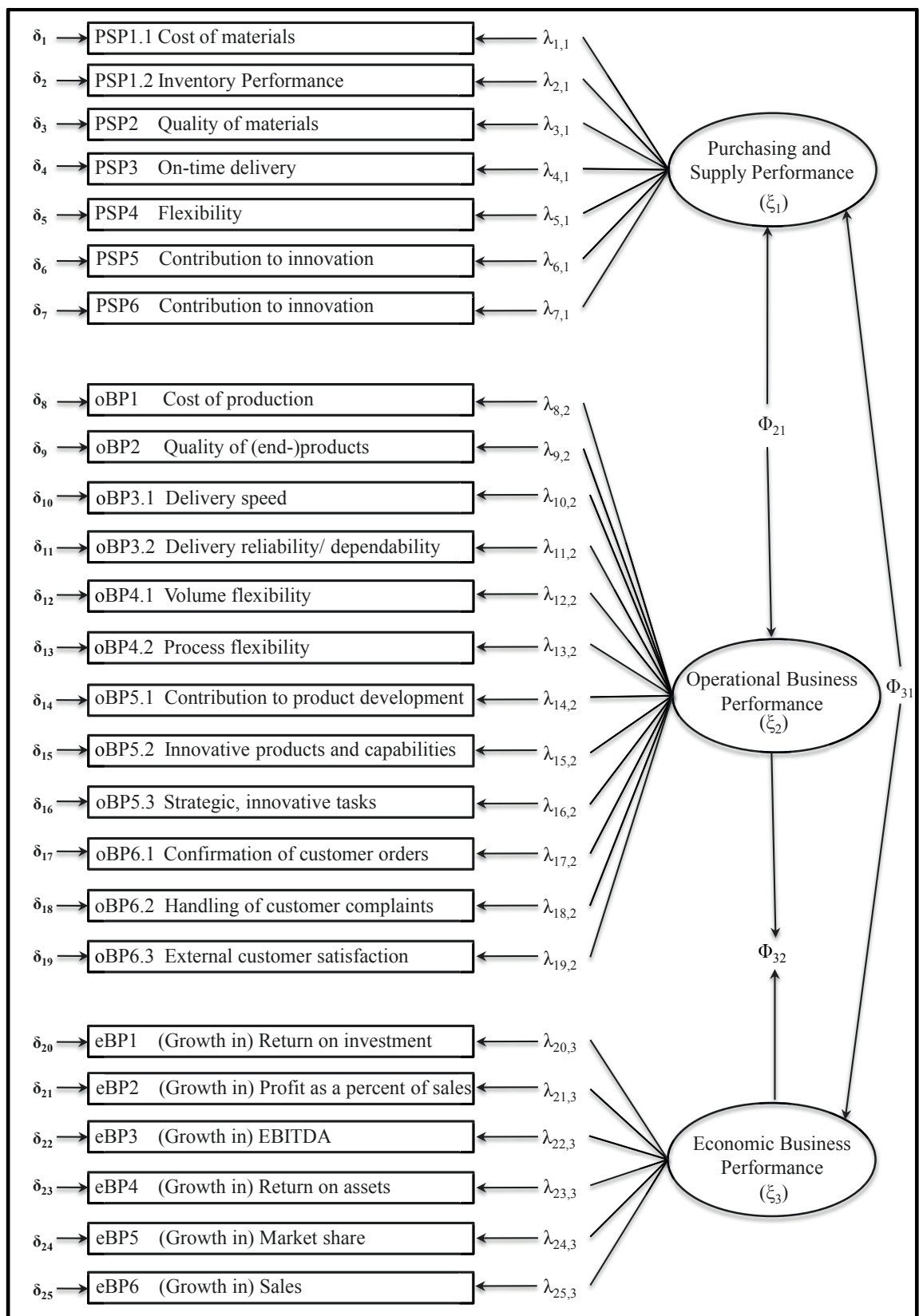
¹³⁷ Zur Operationalisierung der LA-Dimension wurden zudem die im SLR von SUCKY/ DURST (2013) identifizierten *Supplier Development*-Primärstudien hinsichtlich adäquater Items analysiert.



Darstellung 14: Dimensionen des Strategie-Alignment-Index

Die Definition der Performance-Dimensionen erfolgt dabei unter Bezugnahme auf Kapitel 4 und Anlage 4 (abhängige Variable).¹³⁸ Die Festlegung der Measures und Items erfolgt angesichts der sehr breiten SLR-Datenbasis wiederum auf der Basis bereits verwandter, besonders valider/ signifikanter Kennzahlen. Darstellung 15 fasst das multidimensionale PSMAI-Konstrukt und zugehörige Items zusammen (vgl. zudem auch Anlage 7 zur exakten Operationalisierung und Herkunft der eingesetzten Variablen).

¹³⁸ Zur eigentlichen Beurteilung sollen im Rahmen der Datenerhebung Likert-Skalen eingesetzt werden (vgl. Flynn, B. B. et al., Empirical, 1990, S. 275 ff.).



Darstellung 15: Dimensionen des Buying Firm's Performance Outcomes-Konstrukts

Die *operational PSP* enthält dabei Kennzahlen zur Quantifizierung der Leistung des Einkaufs auf funktionaler Ebene und berücksichtigt monetäre Aspekte (bspw. Kosten der erworbenen Güter in Bezug auf Zielkostenerreichung oder Total Cost of Ownership) sowie qualitative, zeitliche und innovationsbezogene Kriterien. Die *operational BP*

fokussiert die Wettbewerbsfaktoren auf betrieblicher Ebene und enthält zudem Indikatoren zur (End-)Kundenzufriedenheit. Die *economic BP* umfasst finanzielle und marktbezogene Parameter.¹³⁹ Die einzelnen Items der drei Performance-Konstrukte wurden zudem primär „relativ“ formuliert.¹⁴⁰

Nach der konzeptionellen Erstellung der relevanten Konstrukte wurde bereits eine Prüfung der inhaltlichen Gültigkeit sowie Plausibilität vorgenommen,¹⁴¹ so dass nun empirische Daten über einen (standardisierten) Fragebogen in elektronischer Form durch die Befragung von Einkaufsleitern erhoben werden können.¹⁴²

7 Grenzen der Arbeit

Der vorliegende SLR zum Strategie-Alignment im PSM weist spezifische Grenzen auf. So wurden die unterschiedlichen methodischen **Evaluationskriterien** auf der Grundlage bereits publizierter Performance-Reviews verwandter Forschungsbereiche entwickelt. Die gewählten Kategorien stellen daher lediglich *eine* Möglichkeit der systematischen Beurteilung dar. Auch aus diesem Grunde könnten zukünftige Forschungsvorhaben die Anwendung zusätzlicher methodischer Bewertungskategorien in Betracht ziehen. Dem entwickelten *konzeptionellen Framework* sind ebenfalls durch die gewählte Strukturierungsvariante bestimmte Grenzen immanent, so dass bspw. bestimmte analytische Dimensionen modifiziert oder der Bezugsrahmen per se erweitert werden könnte. Weiterhin stellt die zugrunde liegende *SLR-Methodik* und insbesondere die angewandte Recherchestrategie ein limitierendes Element dieses Reviews dar. So ist das Daten-Set dieser Untersuchung durch die Suchbegriffe, die Definition von Aufnahme- und Ausschlusskriterien sowie die Auswahl von Fachzeitschriften limitiert. In welchem Ausmaß daher die Erkenntnisse dieser Recherche verallgemeinerbar sind, kann nicht zweifelsfrei festgestellt werden. Insofern besitzen die Ergebnisse der Analyse und Bewertung lediglich für die 29 empirischen Alignment-Studien Gültigkeit.

¹³⁹ Vgl. hierzu auch die umfassende Diskussion finanzieller Measures bei Richard, P. J. et al., *Performance*, 2009, S. 729 ff.

¹⁴⁰ Da gerade neuere Studien relative gegenüber absoluten Größen vorziehen und Wachstumsraten oftmals zutreffendere Eignung erfahren, wurde hierbei gezielt das Delta ausgewählt.

¹⁴¹ Vgl. zur Definition von „Reliabilität“ und „Validität“ Churchill Jr., G. A., *Measures*, 1979, S. 65 und Flynn, B. B. et al., *Empirical*, 1990, S. 265 f.

¹⁴² Vgl. hierfür die Ausführungen von Dillman, D. A.; Smyth, J. D.; Christian, L. M., *Surveys*, 2009. Zur eigentlichen Beurteilung sollen im Rahmen der Datenerhebung Likert-Skalen eingesetzt werden (vgl. Flynn, B. B. et al., *Empirical*, 1990, S. 275 ff.).

8 Schlussbetrachtungen und Ausblick

Da strategische Abstimmungsmechanismen im PSM als Ausgangspunkt einer performanceorientierten Ausrichtung zu betrachten sind, verfolgt diese Arbeit die Erhebung des State-of-the-Art zum Strategie-Alignment im PSM und der damit verbundenen Performance-Effekte als übergeordnetes Ziel. So wurde zunächst ein SLR durchgeführt, der einen elementaren Beitrag zur Grundlagenforschung im PSM darstellt. Die systematische Klassifikation, methodische Analyse und inhaltliche Evaluation der identifizierten Primärstudien zeigte dabei, dass aktuell zahlreiche Wissenslücken existieren und diesbezüglicher wissenschaftlicher Klärungsbedarf besteht. Die dezidiert formulierten Forschungslücken wurden in eine umfassende Research Agenda eingebettet. Anschließend wurde eine konkrete Forschungslücke priorisiert und ein innovativer Alignment-Index auf Basis des zuvor entwickelten konzeptionellen Frameworks präsentiert.

Diese Arbeit verifizierte eine große Dominanz von empirischen Befunden, die für signifikant positive Performance-Effekte durch ein adäquates Strategie-Alignment im PSM sprechen. Daher ist der *Unternehmensführung* nachdrücklich anempfohlen, das PSM zukünftig noch wesentlich stärker in die strategische Planung einzubinden und die entsprechenden Ziele der unterschiedlichen Ebenen und Akteure noch besser aufeinander abzustimmen. Die Einkaufsleitung sollte sich darüber hinaus der Mehrdimensionalität des Strategie-Alignments noch stärker bewusst werden und entsprechende Harmonisierungsmaßnahmen anstoßen, um signifikant Performanceverbesserungen zu erreichen. Damit die Führungskräfte im PSM entsprechende *strategische Investitionen* erfolgreich umsetzen können, sollte die Unternehmensführung adäquate finanzielle Mittel zur Verfügung stellen!

Anhang

Anlage 1 Analyse der forschungstheoretischen Grundlage (methodische Variable)

<i>Author(s) (Year)</i>	<i>Country Coverage</i>	<i>Survey Instrument (Time Frame)</i>	<i>Industry Affiliation (Number and Type of Industrial Sectors)</i>	<i>Firm Size</i>	<i>Sampling Frame and Respondents' Profile</i>	<i>Sample Size (Response Rates)</i>	<i>Unit/ Level of Analysis</i>	<i>Used Theories</i>
BAIER ET AL. (2008)	multi-national (global: Europe 63 %, North America 29 % and Asia/ Africa/ South America 8 %)	mail survey (cross-sectional)	cross-industries; multi industries (SBUs from 8 differ- ent industry sectors: high tech and telecoms 21 %, materials and con- struction 15 %, packaged goods 14 %, energy and utilities 12 %, automotive and assembly 11 %, financial institu- tions 11 %, chemicals and pharma 9 % and other industries 7 %)	large (SBUs with revenues greater than US\$3 billion (sample's max sales sales volume was US\$78 billion; on average, revenues in the sample frame were US\$21 billion)	purchasing professionals (CPOs or equivalent senior PSM profes- sional); target population identified by creating a list of all public and private firms exceeding the revenue threshold from the database OneSource; a stratified random sample of 1,000 firms was selected	141 (18,4 %)	SBU/ SBU- level	CT; PAT; TPC
BERNADES (2010)	single country (USA)	web-based survey (cross-sectional)	cross-industries; manufacturing firms (SIC codes 34-36, 38)	not specified (no information availa- ble)	purchasing professionals (respondents held the title of vice presi- dent or manager of purchasing/ acqui- sition/ supply management); key inform- ants sample drawn from ISM database	204 (14 %)	functional/ firm-level; dyadic rela- tionship	SNT
BERNADES/ ZSIDISIN (2008)								
CARR/ PEARSON (1999)	single country (USA)	mail survey (cross-sectional)	cross-industries; multi industries (based on SIC code with no one industry accounting for more than 8,2 % of the sample; mis- cellaneous manufacturing 7,8 %, food 6,6 %, health 8,2 %, chemical 4,3 %, distribution 4,1 % and electronics 3,9 %; combined industries: manufactur- ing 55,6 % and non-manufacturing 44,4 % firms)	small to large (61 % of the firms were small to medium in size based on gross sales dollars and number of employees; on average, the firms in the first sample had \$100 million in gross sales)	purchasing professionals (first key informant sample consisted primarily of high level purchasing execu- tives; first key informants were asked to identify a second informant → 168; random sample collected from members of the NAPM (2260 initial surveys mailed; a total of 739 firms provided at least one completed survey; multiple respondents	739 (34,6 % first key informants); 168 (second sample)	firm/ firm- level	RBV; TCT
CARR/ PEARSON (2002)	single country (USA)	mail survey (cross-sectional)	cross-industries; manufacturing and service firms (miscellaneous manufacturing 7,4 %; food 6,2 %; financial 4,5 %; electron- ics 4 %; pharmaceutical 4 %; health care 4 %; telecommunications 4 %; combined industries: 84 manufactur- ing and 85 non-manufacturing firms; 6 did not report this information)	small to large (majority of firms were small to medium in size based on gross sales dollars; on average, the firms in the first sample had \$100 million in gross sales)	purchasing professionals (with titles such as directors of purchas- ing 54 %; vice presidents of purchasing 14 %; vice president of materials man- agement 6 %; directors of materials management 10 %; others 15 %); key informants a random sample from NAPM membership database (800 surveys were mailed out)	175 (22 %)	firm/ firm- level	RBV
CARR/ SMELTZER (1999b)	single country (USA)	mail survey (cross-sectional)	cross-industries; multi industries (manufacturing, food, health, chemical, distribution, elec- tronics, transportation, pharmaceuti- cal, automotive, banking, construc- tion; combined industries: 410 manu- facturing 55,6 % and 329 non- manufacturing firms 44,5 %)	small to large (on average, firms in the sample had \$100 million gross sales)	purchasing professionals (first key informant sample consisted primarily of high level purchasing execu- tives; 409 purchasing directors 55 %; 129 vice presidents of purchasing 16 %; 60 vice presidents of materials management 8 %; first key informants were asked to identify a second informant → 168; random sample collected from members of the NAPM; multiple respondents	739 (34,6 % first key informants); 168 (second sample)	firm/ firm- level	no theory

CHEN/ PAULRAJ/ LADO (2004)	single country (USA)	mail survey (cross-sectional)	cross-industries; manufacturing firms (SIC codes 34-39)	small/ medium to large (firms with nearly 36 % working for firms em- ploying more than 1000 employees; nearly 60 % of the firms had a gross income > US\$ 100 million)	purchasing professionals (35 presidents/vice presidents 16 %; 138 directors 62 %; 33 purchasing managers 15 %; 15 others 7 %); single respondent sample drawn from the ISM membership directory (1000 respondents were select- ed from a list of 2500 Title 1 and 2 ISM members)	221 (23,2 %)	dyadic rela- tionship; dyadic level	RV; DCV
CHIANG ET AL. (2012)	single country (USA)	mail survey (cross-sectional)	cross-industries; manufacturing firms (SIC codes 34-38)	small to large (annual sales for most firms was \$20-\$99.99 million or \$100-\$499.99 million)	purchasing professionals (senior-level executives; supply chain and purchasing executives of manufac- turing firms in the USA); sampling frame drawn from members of the ISM; the survey was sent to 1972 potential re- spondents	144 (7,3 %)	dyadic rela- tionship; firm-level	DCV
COUSINS ET AL. (2006)	single country (UK)	mail survey (cross-sectional)	cross-industries; manufacturing firms (aerospace and defence 6,6 %; automotive 6,6 %; chemicals 4,0 %; communications/ high tech 9,9 %; consumer goods 7,9 %; general manufacturing 21,9 %; pharmaceutical 4,6 %; other services 37,7 %; no response 0,7 %)	small/ medium to large (plant size under 100 – over 1,000 employees; under £50 million – over £1 billion business unit sales volume)	purchasing professionals (purchasing managers or equivalent: managing director 3%; vice presi- dent/director 13 %; purchasing manager 52 %; senior buyer 8 %; junior manager 24 %); sample of 800 UK manufacturing firms provided through the membership database held by CIPS (each respondent was selected based on job function, plant size and industry sector by SIC)	151 (18,8 %)	plant; plant- level	no theory
DAS/ NARASIMHAN (2000)	single country (USA)	mail survey (cross-sectional)	cross-industries; manufacturing firms (SIC codes 36-38)	small/ medium to large (majority of company sales (\$ million) > 500)	purchasing professionals (322 high-level senior purchasing profes- sionals: vice-president/ director purchas- ing/ materials 50; purchasing/ commodi- ty/ materials managers 179; senior buy- ers/ buyers 7; other titles 6; no response 80); single respondent; a random sample from 1700 selected from the manufactur- ing sector of the NAPM membership list (a random sub-sample of firms was selected from the respondent sample to obtain manufacturing's perspective on the manufacturing-related items in the questionnaire; responses were obtained for manufacturing-related questions from the manufacturing managers of the firms)	322 (19,0 %); reduced sample size 289	firm-level	no theory
DAVID ET AL. (2002)	[USA] not specified; CAPS → pre- sumptive single country (USA)	survey based on archival data (cross-sectional)	cross-industries; multi industries (manufacturing and service firms from 20 industries: aero- space/defense 16 %; carbon steel 7 %; chemical 5,9 %; computer and elec- tronics 6.9 %; food manufacturing 4,2 %; machinery 4,5 %; paper 8 %; petroleum 10,5 %; pharmaceutical 6,6 %; semiconductor 10,1 %; tele- communication 6,3 %; others 13,3 %)	medium to large (the sample firms are relatively larger in size and market share; mean company sales dollars (million) 8,447.31)	not specified (respondent's characteristics not men- tioned as survey based on archival data collected by CAPS in its benchmarking surveys between 1989-1994; these benchmarking results were linked to the Compustat financial data of these firms); sample selection criteria precisely de- scribed with a total of 194 unique firms for final analysis	194 (no information available)		CT

FOERSTL ET AL. (2013)	Global (Europe, North America and the rest of the world)	mail survey & interviews cross-sectional	cross-industries; (Automotive and assembly 13; Chemicals and pharmaceuticals 14; Energy and utilities 20; Financial institutions 16; High tech and telecommunication 24; Materials and construction 24; Packaged goods 24; Others 13)	large revenues exceeding US\$3 billion	executives at the director and vice president level	148 (19,3 %)	SBU-level	no theory
GOH/ LAU/ NEO (1999)	single country (Singapore)	mail survey (cross-sectional)	cross-industries; multi industries (manufacturing firms dealing with electronics, computers, plastics, semiconductors, printing, and construction materials; service industry firm include hospitals, hotels, and restaurants)	small to large (firm size: 66 % SMEs and Non-SMEs 66,20 %. number of employees: Less than 100 employees 29,6 %; 100 to 600 employees 49,3 %; more than 600 employees 21,1 %)	managers (CEO or top management executives); sampling frame of 800 CEOs of firms randomly selected from the mailing list of the Singapore Institute of Purchasing and Materials Management	89 (12,1 %); 71 usable questionnaires (9,7 %)	firm-level	no theory
GONZÁLEZ-BENITO (2007)	single country (Spain)	mail survey (cross-sectional)	cross-industries; manufacturing firms (SIC codes 35-37)	(medium-sized to) large (100 or more employees and annual turnover in thousand euros: mean firm 75334)	purchasing professionals (purchasing managers/ directors); drawn from an initial list of companies from the Dun and Bradstreet database 2004 of the 50,000 largest Spanish manufacturers	141 (33,8 %)	firm-level	TPC
GONZÁLEZ-BENITO (2010)						180 (43,2 %)		no theory
KERN ET AL. (2011)	multi-national (Europe 57,4 %, North America 33,1 % and Rest of World 9,5 %)	mail survey & interviews (cross-sectional)	cross-industries; multi industries (automotive and assembly 8,8 %; chemicals and pharmaceuticals 9,5 %; energy and utilities 13,5 %; financial institutions 10,8 %; high tech and telecommunication 14,9 %; materials and construction 15,5 %; packaged goods 18,2 %; others 8,8 %)	large (companies with annual revenues of at least US\$3 billion; annual sales revenues range from < 5 billion US\$ to > 20 billion US\$)	purchasing professionals (only the most senior executives directly responsible for the purchasing function of companies with fairly complex global purchasing activities); a stratified random sample of 1000 firms was selected	148 (19,3 %); 124 multinational	firm-level	SHT
LAWSON ET AL. (2009)	single country (UK)	internet/ web-based mail survey (cross-sectional)	cross-industries; manufacturing firms (45 % were general manufacturing, 13,5 % electronics, 10 % specialist manufacturing, 9,9 % automotive, and 10,8 % were in industries classified other, such as chemicals and pharmaceutical; 11 % of firms had no response to industry classification)	medium-sized to large (plant size at least 100 employees)	purchasing professionals or equivalent (position: vice president/ director 14 %, senior manager 57 %; and junior manager 29 %; functional area: PSM 89,9 % with the remainder composed of R&D and manufacturing managers; with each respondent selected based on job function); key respondents' sample of 750 firms were selected from a CIPS database	111 (14,8 %)	dyadic relationship; dyadic level	RV (RBV); SNT
NARASIMHAN/DAS (2001)	single country (USA)	mail survey (cross-sectional)	cross-industries; manufacturing firms (SIC codes 34-38)	small to large (company sales (US\$ millions) range from < 1 to > 500)	purchasing professionals (322 high-level senior purchasing professionals: vice-president/ director purchasing/ materials 50; purchasing/ commodity/ materials managers 179; senior buyers/buyers 7; others 6; no response 80); single respondent; random sample drawn from 1700 senior PSM professionals randomly selected from the manufacturing sector of the NAPM membership list	322 (19 %); reduced sample size 289	firm-level	no theory

NARASIMHAN/ JAYARAM/ CARTER (2001)	[USA] not specified; CAPS → pre- sumptive single country (USA)	mail survey (cross-sectional)	cross-industries; multi industries	small to large (mean sales for the sample was \$1,175.44 million; mean number of employees was 8,401)	purchasing professionals (three segments: 1) vice-presidents and directors; 2) purchasing managers, senior purchasing officers, and senior buyers; and 3) buyers, purchasing agents, and associate buyers); a stratified random sample of potential single respondents was selected from the NAPM member- ship database	302 (10 %); 179 (6,0 %)	firm-level	no theory
PAGELL/ KRAUSE (2002)	single country (USA)	mail survey (cross-sectional)	cross-industries; manufacturing firms (SIC codes 20-39; total 252: apparel 2; chemicals 13; electrical/ electronic equipment 50; fabricated metal 4; food 26; furniture 2; machinery 1; misc. manufacturing 48; other- unclassified 32; paper 12; petroleum 6; primary metal 6; textiles 4; trans- portation equipment 28; wood prod- ucts 4)	medium to large (companies with gross annual sales greater than \$100 million comprised at least 42 % of the sample)	purchasing professionals (directors 55 %; vice-presidents 21 %; purchasing managers 14,8 %; others 16 %) and manufacturing professionals (directors 44 %; vice-presidents 25 %; operations/ production manager 20 %; others 11 %); a target sample of 1283 Title 1 purchasing members of the NAPM selected; responses from the PSM executives and their high-level manufac- turing counterparts; (quasi-)multi re- spondents	189 pairs/ dyads (20,0 %)	plant-level	no theory
PAULRAJ/ CHEN (2005a)	single country (USA)	mail survey (cross-sectional)	cross-industries; manufacturing firms (SIC codes 34-39; SIC 34 fabricated metal industries 22,2 %; SIC 35 industrial machinery and equipment 14 %; SIC 36 electronic and other electric equipment 22,2 %; SIC 37 transportation equipment 9,5 %; SIC 38 instruments and related products 7,2 %; SIC 39 miscellaneous manu- facturing industries 24,9 %)	small/ medium to large (36 % firms with more than 1000 employees; nearly 60 % of the firms had a gross in- come >US\$ 100 million)	purchasing professionals (35 presidents/ vice presidents 16 %; 138 directors 62 %; 33 purchasing managers 15 %; 15 others 7 %); single respondent sample drawn from the ISM membership directory (1000 respondents were select- ed from a list of 2500 title 1 and 2 ISM members)	221 (23,2 %)	dyadic rela- tionship; dyadic level	no theory
PAULRAJ/ CHEN (2005b)								RV
PAULRAJ/ CHEN (2007)								RDT
PAULRAJ ET AL. (2006)							dyadic rela- tionship; firm-level/ buying firms' perspective	no theory
SÁNCHEZ- RODRÍGUEZ (2009)	single country (Spain)	mail survey (cross-sectional)	cross-industries; manufacturing firms (food and beverage 19,0 %; auto components 15,0 %; miscellaneous manufacturing 13,1 %; chemicals 12,4 %; machinery 6,5 %; pharmaceu- tical products 4,9 %; construction materials 4,6 %; telecommunications and electronic equipment 3,9 %; electricity materials 3,9%; primary metals 3,9 %; paper 3,6 %; electric appliances 3,3 %; non ferrous metal- lurgy 2,9 %; textile 2,9 %)	medium to large (number of employees ranges from <100 to >1000; annual sales and number of employ- ees on average € 141 million and 568 employ- ees)	purchasing professionals (high-level purchasing executives: direc- tors of purchasing 48 %, general manag- ers of purchasing 29 %, purchasing managers 6 %, and other titles 17 %); single key informant purchasing manag- ers selected from the year 2000 Dun and Bradstreet database listing the largest manufacturing companies in Spain	306 (25 %)	firm-level	RV

SCHOENHERR/ MABERT (2011)	[USA] not specified; ISM → presumptive single country (USA)	web-based/ online survey (cross-sectional)	cross-industries; manufacturing firms (SIC codes 20-39; miscellaneous manufacturing industries 2,8 %, followed by electronic/ electric equipment 16,0 %, fabricated metal products 8,9 %, and chemicals and allied products 8,7 %; all remaining manufacturing SIC codes had a repre- sentation of < 8 %)	small to large (average number of 8800 employees)	purchasing professionals (a random address set of procurement managers employed in manufacturing industries was kindly provided by the ISM; recipients were asked to focus on the most recent focal multi-item RFQ)	825 (17,8 %)	multi-item RFQ	IBB
SHAO ET AL. (2012)	multi-national (Germany and Switzerland)	mail survey (cross-sectional)	cross-industries; multi industries	medium to large (sales volume threshold was 10 million euros)	target respondents not specified (database from AZ Bertelsmann to establish the population of 440 firms of Germany and 110 of Switzerland); selection based on a stratified random choice	112 (more than 21 %)	(functional &) firm-level	RBV; TCT; MBV; RV
SU (2013)	single country (USA)	mail survey (cross-sectional)	single industry; textile and apparel firms	small to medium (to large) less than 5 million US\$ - over 500 million US\$	purchasing/ sourcing manager, buyer, etc.	180 (28,3 %)	buyer- supplier dyad	RBV; RV
SU/ GARGEYA (2012b)	single country (USA)	mail survey (cross-sectional)	single industry; textile and apparel firms (different industrial sectors: 40,8 % textile industry, 40,1 % from apparel manu- facturers, and 18,4 % from apparel retailers/wholesalers)	small to medium (to large) (number of employees: less than 100 to over 1,000; annual gross sales less than 5 million US\$ to over 500 million US\$)	managers (mainly directors of purchasing 28,3 %; vice president of purchasing, manufacturing, or logistics/ operations 29,0 %; CEO/ presidents 12,5 %; general managers 7,2 %; supply chain managers 3,3 %; buyer agent 5,9 %); single key respondents (survey instrument was sent to a random sample of 660 firms in the US textile and apparel industry selected from Dun & Bradstreet database and two directory books)	152 (23,0 %), 146 con- tained com- pleted re- sponses	(functional &) firm-level	RBV

Legende: Institute for Supply Management (ISM); National Associations of Purchasing Management (NAPM); Chartered Institute of Purchasing & Supply (CIPS); Center for Advanced Purchasing Studies (CAPS); Chief Executive Officer (CEO); Chief Procurement Officer (CPO); Standard Industrial Classification (SIC); Strategic Business Unit (SBU); International Manufacturing Strategy Survey (IMSS); Industrial buyer behavior (IBB); Resource-based view (RBV); Dynamic capabilities view (DCV); Market-based view (MBV); Social network theory (SNT); Contingency theory (CT); Principal-agent theory (PAT); Relational view (RV); Transaction cost theory (TCT); Theory of production competence (TPC); Resource dependence theory (RDT); Stakeholder theory (SHT); Grounded theory (GT); Social comparison theory (SCT)

Anlage 2 Analyse des statistischen Instrumentariums

<i>Author(s) (Year)</i>	<i>Statistical techniques/ Statistical Technique(s) for Hypothesis testing</i>
BAIER ET AL. (2008)	DA; PCA with orthogonal varimax rotation using SPSS 15.0; three step approach: (1) CFA using LISREL 8.8. (2) Construct validity (convergent validity and discriminant validity). (3) Reliability of the constructs' scales; means, standard deviations, Pearson correlations and Cronbach's alphas; Profile deviation analysis; Regression analysis
BERNARDES (2010)	DA (items correlations, means, standard deviations); EFA; multivariate T-Test; CFA based on LISREL; SEM using LISREL 8.51
BERNARDES/ ZSIDISIN (2008)	DA (items correlations, means, standard deviations); CFA; EFA; multivariate T-Test; CFA based on LISREL; SEM using LISREL
CARR/ PEARSON (1999)	DA; Correlation analysis using SAS procedure PROC; EFA (n = 571 of 739); CFA; T-Test; group comparison by ANOVA; MANOVA; SEM (n = 168)

CARR/ PEARSON (2002)	DA; univariate T-Test; Chi-square analysis; one-way ANOVA; CFA and SEM using SAS procedure Proc Calis
CARR/ SMELTZER (1999b)	DA; EFA (n = 571); Correlation analysis; one-way ANOVA; Simple regression analysis with the SAS procedure PROC Reg (n = 168)
CHEN/ PAULRAJ/ LADO (2004)	DA; T-Test; Chi-square analysis; EFA using PCA with varimax rotation; CFA; SEM using LISREL
CHIANG ET AL. (2012)	DA; T-Test; SEM using PLS technique with SmartPLS 2.0
COUSINS ET AL. (2006)	DA; EFA using PCA with oblimin rotation in SPSS 11.5; T-Test; ANOVA; Cluster analysis (Ward's minimum variance cluster method; non-hierarchical (K-means) cluster analysis; Bonferroni post hoc procedure; F statistics and associated p-values are derived from one-way ANOVA)
DAS/ NARASIMHAN (2000)	Descriptive analysis; SEM; CFA; ANOVA; Simple and Multiple linear regression analysis
DAVID ET AL. (2002)	DA (Pearson correlation; several sensitivity analyses); Regression analysis
FOERSTL ET AL. (2013)	DA; EFA; path analysis SEM with PLS
GOH/ LAU/ NEO (1999)	DA (means, standard deviations); EFA; Chi-square analysis; Pearson correlation analysis (SPSS-X employed for the data analysis)
GONZÁLEZ-BENITO (2007)	DA; EFA; T-Test; Chi-square analysis; ANOVA; CFA; SEM; Simple and moderated regression analysis
GONZÁLEZ-BENITO (2010)	DA; EFA; CFA; Correlation analysis; Multiple regression analysis
KERN ET AL. (2011)	DA; T-Test; Chi-square analysis; CFA (measurement model by maximum likelihood calculations using the LISREL 8.72) and Multiple Correlation Analysis
LAWSON ET AL. (2009)	DA; T-Test; Chi-square analysis; CFA; SEM (with maximum likelihood estimation and the covariance matrix used as input to the model) using AMOS 6.0
NARASIMHAN/ DAS (2001)	DA; ANOVA; CFA; PCA; Simple and moderated (hierarchical) regression analysis
NARASIMHAN ET AL. (2001)	DA; T-Test; Chi-square analysis; CFA; SEM via LISREL 7.0 using the maximum likelihood method of estimation and Regression analysis
PAGELL/ KRAUSE (2002)	DA; T-Test; Hierarchical regression analysis
PAULRAJ/ CHEN (2005a)	DA; Multiple regression analysis
PAULRAJ/ CHEN (2005b)	DA; PCA; test for the homogeneity; CFA using LISREL; T-Test; SEM via LISREL using the maximum likelihood method of estimation
PAULRAJ/ CHEN (2007)	DA; T-Test; CFA; PCA from SPSS and measurement models using LISREL; SEM via LISREL using the maximum likelihood method of estimation
PAULRAJ ET AL. (2006)	DA; EFA using PCA; Chi-square analysis; T-Test; CFA; ANOVA and Scheffe pairwise tests ; hierarchical cluster analysis using the Ward's method with the squared Euclidean distance measure using SPSS and K-means cluster analysis
SÁNCHEZ-RODRÍGUEZ (2009)	DA; Correlation analysis; ANOVA; CFA; EFA; Chi-square analysis; SEM using LISREL 8.50
SCHOENHERR/ MABERT (2011)	DA; EFA; T-Test; one-way ANOVA; CFA using LISREL 8.80; hierarchical/ non-hierarchical Cluster analysis; Multinomial logistic regression analysis and univariate ANCOVA
SHAO ET AL. (2012)	DA; EFA; t-statistics; PCA; SEM using variance-based PLS
SU (2013)	DA; T-Test; CFA; SEM with maximum likelihood estimation method
SU/ GARGEYA (2012b)	DA; univariate T-Test; Chi-Square analysis; CFA; SEM based on the maximum likelihood estimation method using LISREL 8.8

Legende: Descriptive analysis (DA); Structural Equation Modeling (SEM); Partial Least Squares (PLS); Factor Analysis (FA); Principal component (factor) analysis (PCA); Confirmatory Factor Analysis (CFA); Explorative Factor Analysis (EFA); Analysis of covariance (ANCOVA); Analysis of variance (ANOVA); Multivariate Analysis of Variance (MANOVA); Statistical Package for the Social Sciences (SPSS); Linear Structural Relations (LISREL); Analysis of Moment Structure (AMOS); Statistical Analysis Software (SAS)

Anlage 3 Analyse der Operationalisierung der Strategie-Alignment-Konstrukte (unabhängige Variable)

<i>Author(s) (Year) Journal</i>	<i>Independent Variable</i>	<i>Independent Items/ Measures/ Reference(s)</i>	<i>Contextual Variables</i>
<p>BAIER ET AL. (2008)</p> <p>JSCM</p>	<p>1) Business strategy</p> <p>2) Purchasing competitive priorities</p> <p>3) Purchasing practices</p>	<p>1.1) Cost leadership (importance of cost leadership); 1.2) Differentiation type of quality leadership; 1.3) Differentiation type of technology leadership; 1.4) Differentiation type of service leadership; 1.5) Differentiation type of brand leadership; 1.6) Standardization (Cost leadership); 1.7) Customization (Cost leadership)</p> <p>2.1) Cost (reducing landed costs, reducing lifecycle costs, reducing systems costs); 2.2) Quality (improving quality, managing delivery reliability); 2.3) Innovation (contributing to innovation, developing technical supplier capabilities, integrating suppliers in new product development)</p> <p>3.1) Culture and capabilities (mindsets and aspirations, talent management, purchasing integration); 3.2) Structure and systems (organizational structure, cross-functional collaboration, performance management, knowledge and information management); 3.3) Strategy and execution (supply strategy, core purchasing processes, supplier management)</p> <p>PORTER (1980); KRAUSE ET AL. (2001); NARASIMHAN/ CARTER (1998); DAS/ NARASIMHAN (2000); DAY/ LICHTENSTEIN (2006)</p>	<p>Control Variable 1) SBU size; 2) Industry; 3) Region</p> <p>Mediator Variable not applied</p> <p>Moderator Variable not applied</p>
<p>BERNADES (2010)</p> <p>JSCM</p>	<p>Strategic purchasing (strategic supply management)</p>	<p>1) Purchasing develops strategies for key commodities and purchases; 2) Purchasing develops its strategies based upon and to support our overall corporate strategy; 3) Purchasing coordinates strategies for common products/services across business units; 4) Purchasing has a good knowledge of our firm's strategic goals; 5) Purchasing manages the overall supply base using a collaborative approach; 6) Purchasing participates in our firm's strategic planning process¹</p> <p>KRAUSE/ HANDFIELD/ SCANNELL (1998); CARR/ PEARSON (1999); CARR/ SMELTZER (1999b); ZSIDISIN/ ELLRAM (2001); CHEN/ PAULRAJ/ LADO (2004); MONCZKA/ TRENT/ HANDFIELD (2005); ROSSETTI/ CHOI (2005)</p>	<p>Control Variable not applied</p> <p>Mediator Variable 1) Network-relational embeddedness: 1.1) PSM has frequent contacts with the firms in our supply base¹; 1.2) PSM meets socially with representatives in our supply base; 1.3) PSM has a mutually gratifying relationship with representatives of our supply base; 1.4) PSM knows people in our supply base on a personal level; 1.5) PSM will reciprocate if a firm in our supply base has helped our firm before; 1.6) PSM expects to work with the current firms in our supply base far into the future¹; 2) Network-shared cognition: 2.1) PSM and the relevant supply network share a common understanding about the needs of the end customer; 2.2) PSM and the relevant supply network share a common understanding about how our actions impact each other; 2.3) PSM and the relevant supply network have a common understanding about market trends and developments; 2.4) PSM and the relevant supply network understand each other's needs and priorities; 2.5) There is general agreement between PSM and the relevant supply network about market information</p> <p>Moderator Variable not applied</p>
<p>BERNADES/ ZSIDISIN (2008)</p> <p>JPSM</p>	<p>Strategic supply management (strategic purchasing)</p>	<p>1) Supply management develops strategies for key commodities and purchases; 2) Supply management develops its strategies based on and to support our overall corporate strategy; 3) Supply management coordinates strategies for common products/ services across business units; 4) Supply management has a good knowledge of our firm's strategic goals; 5) Supply management participates in our firm's strategic planning process¹</p> <p>KRAUSE/ HANDFIELD/ SCANNELL (1998); CARR/ PEARSON (1999); CARR/ SMELTZER (1999b); ZSIDISIN/ ELLRAM (2001); CHEN/ PAULRAJ/ LADO (2004); MONCZKA/ TRENT/ HANDFIELD (2005); ROSSETTI/ CHOI (2005)</p>	<p>Control Variable not applied</p> <p>Mediator Variable 1) Network scanning: 1.1) SM inquires the supply base about new technological developments; 1.2) SM inquires the supply base about market opportunities; 1.3) SM collects suggestions for improvements from the supply base; 1.4) SM collects suggestions from the supply base about better ways to meet end customer's needs; 1.5) SM inquires the supply base about opportunities/constraints in our supply network; 2) Network relational embeddedness: 2.1) SM has frequent contacts with the firms in the supply base¹; 2.2) SM meets socially with representatives in the supply base; 2.3) SM has a mutually gratifying relationship with representatives of the supply base; 2.4) SM knows people in the supply base on a personal level; 2.5) SM will reciprocate if a firm in the supply base has helped our firm before; 2.6) SM expects to work with the current firms in the supply base far into the future</p> <p>Moderator Variable not applied</p>

<p>CARR/ PEARSON (1999)</p> <p>JOM</p>	<p>Strategic purchasing</p>	<p>1) The purchasing function has a formally written long-range plan (e.g., a 5-10 year plan); 2) Purchasing's long-range plan is reviewed and adjusted to match changes in the company's strategic plans on a regular basis; 3) Purchasing's long-range plan includes the various types of relationships to be established with suppliers</p>	<p>Control Variable 1) Firm size; 2) Industry</p> <p>Mediator Variable 1) Supplier evolution systems: 1.1) We have a formal supplier certification program; 1.2) Our company has a formal system to track the performance of the suppliers we deal with; 1.3) Our firm has a formal program for evaluating and recognizing suppliers; 2) Buyer-supplier relationships: 2.1) We enter into special agreements with suppliers who have improved performance; 2.2) We are loyal to key suppliers; 2.3) We have very frequent face-to-face planning/ communication with key suppliers; 2.4) There is high corporate level communication on important issues with key suppliers; 2.5) There are direct computer to computer links with key suppliers; 2.6) Purchasing can influence first tier supplier's responsiveness to purchasing requirements</p> <p>Moderator Variable not applied</p>
<p>CARR/ PEARSON (2002)</p> <p>IJOPM</p>	<p>Purchasing/ supplier involvement</p>	<p>1) Key suppliers are involved in the design process of our products; 2) Purchasing develops innovative strategies to support new product development; 3) Purchasing is involved in new product development; 4) Purchasing participates on cross-functional teams; 5) Our key suppliers are involved in our strategic planning process</p>	<p>Control Variable 1) Firm size (based on gross sales); 2) Industry</p> <p>Mediator Variable 1) Strategic purchasing: 1.1) Purchasing's long-range plan is reviewed and adjusted to match changes in the company's strategic plans on a regular basis; 1.2) Comprehensive purchasing strategies have been developed to support the company's strategies; 1.3) Purchasing consistently provides input to top management on future supply needs and constraints; 1.4) My company has a formal business planning process</p> <p>Moderator Variable not applied</p>
<p>CARR/ SMELTZER (1999b)</p> <p>EJPSM</p>	<p>Level of strategic purchasing</p>	<p>1) The purchasing function has a formally written long-range plan (e.g., a 5-10 year plan); 2) Purchasing's long-range plan is reviewed strategic plans on a regular basis; 3) Purchasing's long-range plan includes the kinds of materials or services to be purchased</p>	<p>Control Variable not applied</p> <p>Mediator Variable not applied</p> <p>Moderator Variable not applied</p>
<p>CHEN/ PAULRAJ/ LADO (2004)</p> <p>JOM</p>	<p>Strategic purchasing</p>	<p>1) Purchasing is included in the firm's strategic planning process; 2) The purchasing function has a good knowledge of the firm's strategic goals; 3) Purchasing performance is measured in terms of its contributions to the firm's success; 4) Purchasing professionals' development focuses on elements of the competitive strategy; 5) Purchasing department plays an integrative role in the purchasing function; 6) Purchasing's focus is on longer term issues that involve risk and uncertainty²; 7) The purchasing function has a formally written long-range plan³</p> <p>CARR/ SMELTZER (1997); CAVINATO (1999); CARTER/ NARASIMHAN (1993)</p>	<p>Control Variable not applied</p> <p>Mediator Variable 1) Limited number of suppliers: 1.1) We rely on a small number of high quality suppliers; 1.2) We maintain close relationship with a limited pool of suppliers; 1.3) We get multiple price quotes from suppliers before ordering²; 1.4) We drop suppliers for price reasons²; 1.5) We use hedging contracts in selecting our suppliers²; 2) Long-term orientation: 2.1) We expect our relationship with key suppliers to last a long time; 2.2) We work with key suppliers to improve their quality in the long run; 2.3) The suppliers see our relationship as a long-term alliance; 2.4) We view our suppliers as an extension of our company; 2.5) We give a fair profit share to key suppliers²; 2.6) The relationship we have with key suppliers is essentially evergreen³; 3) Communication: 3.1) We share sensitive information (financial, production, design, research, and/or competition; 3.2) Suppliers are provided with any information that might help them; 3.3) Exchange of information takes place frequently, informally and/or in a timely manner; 3.4) We keep each other informed about events or changes that may affect the other party; 3.5) We have frequent face-to-face planning/ communication; 3.6) We exchange performance feedback²</p> <p>Moderator Variable not applied</p>

<p>CHIANG ET AL. (2012)</p> <p>IJOPM</p>	<p>Strategic sourcing</p>	<p>1) Strategic purchasing: 1.1) Top management emphasizes purchasing function's strategic role; 1.2) Purchasing is viewed as equal to other functions by the CEO; 1.3) Purchasing is involved in corporate-level strategic planning; 2) Internal integration: 2.1) There is frequent communication between purchasing and other departments within our firm; 2.2) Purchasing personnel are included in concurrent engineering teams; 2.3) Purchasing executives receive cross-functional training; 3) Information sharing: 3.1) Production schedule information sharing with supplier; 3.2) Synchronized scheduling of production with suppliers; 3.3) Cost information sharing with supplier; 4) Supplier development: 4.1) Financial assistance to the suppliers; 4.2) Technological assistance to the suppliers; 4.3) Training in quality issues to suppliers' personnel</p> <p>KOCABASOGLU/ SURESH (2006)</p>	<p>Control Variable 1) Firm size (number of full-time employees); 2) Production process (ETO; MTO; ATO; MTS); 3) Product seasonality (nonseasonal; seasonal); 4) Product perishability (nonperishable; perishable)</p> <p>Mediator Variable Firm's strategic flexibilities: 1) Supply flexibility: 1.1) Suppliers show better quality of conformance to specifications; 1.2) Suppliers are able to accept late "mix" changes in orders; 1.3) Suppliers are able to supply newly designed or modified parts without excessive time/cost penalties¹; 2) Product design-related flexibility: 2.1) It takes a long time for us to introduce new products¹; 2.2) It takes a long time to accommodate minor design changes¹; 2.3) It takes a long time for us to change our product mix¹; 3) Process-related flexibility: 3.1) It takes us a long time to vary production by 20 percent¹; 3.2) Most of our workers can handle multiple machines¹; 3.3) We frequently utilize job rotation for workers; 3.4) There are pools of identical machines for most processes in the factory</p> <p>Moderator Variable not applied</p>
<p>COUSINS ET AL. (2006)</p> <p>IJOPM</p>	<p>Purchasing skills</p> <p>Strategic planning</p> <p>Purchasing status</p> <p>Internal integration</p>	<p>1) Purchasing skills (...level of purchasing personnel's knowledge and skills within your firm?): 1.1) Purchasing professionals have the necessary skills to monitor and interpret changes in the supplier market/product base; 1.2) Purchasing professionals have the technical capabilities to help our suppliers improve their processes and products; 1.3) Purchasing professionals have the necessary skills to improve the firm's total cost of doing business with the firm's suppliers; 1.4) Purchasing professionals demonstrate perseverance, imagination, decisiveness and interpersonal skills</p> <p>2) Purchasing in strategic planning (...PSM's level of involvement in strategic planning within your firm?): 2.1) Purchasing is included in the firm's long strategic planning process²; 2.2) Purchasing performance is measured in terms of its contributions to firm's success²; 2.3) Purchasing professionals' development focuses on the elements of the competitive strategy; 2.4) Purchasing's focus is on longer term issues that involve risk and uncertainty; 2.5) The purchasing function has a formally written long range plan</p> <p>3) Purchasing status in the eyes of top managers (...the status of PSM within your organization?): 3.1) Top management is supportive of our efforts to improve the PSM department; 3.2) In this company, PSM is considered a vital part of our company strategy; 3.3) PSM's views are considered important to many top managers</p> <p>4) Internal integration of the purchasing function (...reflect the level of integration of PSM within your firm?): 4.1) Purchasing regularly attends strategy meetings²; 4.2) Purchasing recommends and initiates changes in end products and inputs, based on supply market analysis; 4.3) A high proportion of purchasing personnel spend time in market and price/ cost analysis²; 4.4) Purchasing participates in new product design; 4.5) Purchasing participates in process design and improvement; 4.6) Purchasing is measured on strategic contributions to the company (e.g. new products/ technologies), versus cost and efficiency contributions</p> <p>CARR/ PEARSON (1999); CARTER/ NARASIMHAN (1993); HENDRICK/ ELLRAM (1993); CARR/ SMELTZER (2000); NARASIMHAN/ DAS (2001)</p>	<p>Control Variable not applied</p> <p>Mediator Variable not applied</p> <p>Moderator Variable not applied</p>
<p>DAS/ NARASIMHAN (2000)</p> <p>JSCM</p>	<p>Purchasing competence</p>	<p>Purchasing competence (= latent capability to structure, develop, and manage the supply base in alignment with manufacturing (and business) priorities): 1) Supply base optimization (parts bundling); 2) Buyer-supplier relationship development; 3) Supplier capability auditing; 4) Purchasing integration: 4.1) Purchasing attends corporate meetings; 4.2) Purchasing impacts end-product changes; 4.3) Purchasing focus on market/ price analysis, 4.4) Purchasing participates in new product development; 4.5) Purchasing participates in process design; 4.6) Purchasing measured on strategic metrics</p>	<p>Control Variable not applied</p> <p>Mediator Variable not applied</p> <p>Moderator Variable not applied</p>

		ROBERTSON (1995); GADDE/ HÅKANSSON (1994); HANDFIELD (1993); MONCZKA/ TRENT/ CALLAHAN (1993); DYER/ CHO/ CHU (1998); KAMATH/ LIKER (1994); RING/ VAN DE VEN (1992), (1994); LANDEROS/ MONCZKA (1989); WATTS/ HAHN (1993); WATTS/ KIM/ HAHN (1995); LASCELLES/ DALE (1990); ELLRAM/ CARR (1994); MONCZKA/ TRENT (1991); FREEMAN/ CAVINATO (1990); RECK/ LONG (1988)	
DAVID ET AL. (2002) MGMTS	Product strategy Organization design at purchasing management level	1) Cost efficiency or 2) differentiation dimension of a firm's product strategies (these two criteria → six variables were selected): 1) Research and development propensity; 2) Advertising and administrative to net sales; 3) Relative gross margin; 4) Market to book ratio; 5) New capital investment to sales; 6) Asset utilization 1) Organization form; 2) Purchasing dollars per supplier; 3) Supplier concentration; 4) Span of coordination; 5) Percent of purchases through Electronic Data Interchange usage PORTER (1980)	Control Variable Environmental influences at both industry and firm levels controlled 1) Industry research and development propensity; 2) Industry competitiveness (Herfindahl index); 3) Industry demand uncertainty; 4) Industry cost to sales ratio; 5) Firm-level demand uncertainty; 6) Relative firm-level cost to sales ratio; 7) Firm-level cash flow predictability; 8) Proxy by the log of a firm's total market value Mediator Variable not applied Moderator Variable 1) Product uniqueness; 2) capital intensity; 3) organization structure; 4) scope of activities
FOERSTL ET AL. (2013) IJOPM	Talent management Performance management	1) PSM career paths planning; 2) Training and talent development; 3) Degree of separation between transactional and strategic roles. 1) Target setting mechanics in PSM; 2) PSM target tracking and reporting process; 3) Individual performance management DELANEY/ HUSELID (1996); YOUNDT ET AL. (1996); GIUNIPERO/ HANDFIELD/ ELTANTAWY (2006); NEELY ET AL. (1997)	Control Variable not applied Mediator Variable 1) Cross-functional integration: 1.1) PSM integration in the product development process; 1.2) PSM integration with manufacturing; 1.3) PSM integration in marketing and sales; 2) Functional Coordination: 2.1) Corporate-wide category management; 2.2) Supply base coordination; 2.3) International sourcing strategy Moderator Variable not applied
GOH/ LAU/ NEO (1999) JSCM	Model I: Corporate competitive strategy Model II: CEO's perception of importance of purchasing	1) Competitive strategy - Cost (Cost leadership; Customer savings; Large market share; Efficiency in production) vs. 2) Competitive strategy - Differentiation (Product innovation/ uniqueness; Product/ service quality) 1) Instrumental in competitive strategy formulation; 2) Critical in reducing prices for firm; 3) Affects operations of firm PORTER (1980) Model I; LYSON (1981) Model I	Control Variable not applied Mediator Variable Model II: Purchasing's integration with other functions: 1) PSM's integration with other functions: 1.1) Legal; 1.2) Research and development; 1.3) Advertising/Marketing; 1.4) Engineering; 1.5) Accounting/Finance 2) Purchasing-supplier partnership: 2.1) Evaluate supplier extensively before partnership; 2.2) Work closely with supplier to increase profits; 2.3) Has large influence on supplier's systems; 2.4) Engages in joint problem solving with supplier 3) Involvement of PSM in team decisions: 3.1) Develop procurement strategy in matrix teams; 3.2) Integrate information well with other functions; 3.3) Always asked to contribute to teams; 3.4) Always included in cross-functional project teams; 3.5) Usually helps to make important team decisions; 3.6) Thoroughly involved in all organizational teams Moderator Variable not applied
GONZÁLEZ-BENITO (2007) JOM	Purchasing efficacy	Purchasing efficacy Index 1 and Purchasing efficacy Index 2 Note: Purchasing efficacy is the fit between purchasing strategic objectives/ competitive priorities and purchasing capabilities. HAYES/ WHEELWRIGHT (1984); KRAUSE ET AL. (2001)	Control Variable not applied Mediator Variable not applied Moderator Variable Purchasing strategic integration 1) The purchasing department participates directly in the business strategic planning process; 2) Purchasing professionals have a good knowledge of the business strategic objectives; 3) The performance of the purchasing department is measured in terms of its contribution to the business strategic objectives; 4) Training of purchasing professionals is oriented to meet the needs derived from business strategic plans; 5) The purchasing department has a formally written long-term plan to develop and support business strategy; 6) Purchasing plans are continuously revised to adapt them to changes in business strategic planning

<p>GONZÁLEZ-BENITO (2010)</p> <p>IJOPM</p>	<p>Relative importance</p>	<p>Relative importance of generic competitive objectives: 1) Relative importance of quality: 1.1) Features and functionality of purchased products; 1.2) Durability of purchased products; 1.3) Reliability of purchased products; 1.4) Fit to purchasing specifications of purchasing products; 1.5) Efficacy of suppliers in attending to our complaints; 2a) Relative importance of cost (organizational efficiency): 2a.1) Labor productivity in the purchasing department; 2a.2) Productivity of purchasing resources; 2a.3) High utilization of purchasing resources; 2b) Relative importance of cost (logistics efficiency): 2b.4) Low cost of purchases (purchasing price, transportation); 2b.5) Low inventory levels; 3) Relative importance of dependability: 3.1) Quick delivery time by suppliers; 3.2) Fulfillment of agreed schedules by suppliers; 3.3) Fulfillment of agreed delivery terms by suppliers (quantity, quality, format); 4) Relative importance of flexibility: 4.1) Supplier flexibility to adapt capacity to the needs of our company; 4.2) Wide range of product versions, options and features offered by suppliers; 4.3) Supplier capability to introduce (customized) changes in products; 4.4) Supplier rate of introduction of new products (updated and leading products)</p> <p>KRAUSE ET AL. (2001); WARD ET AL. (1998); KATHURIA (2000); WARD/ DURAY (2000)</p>	<p>Control Variable 1) Firm size; 2) Industry; 3) Importance of purchasing in the organizational hierarchy</p> <p>Mediator Variable not applied</p> <p>Moderator Variable not applied</p>
<p>KERN ET AL. (2011)</p> <p>JBL</p>	<p>Suppliers</p> <p>Internal clients</p> <p>PSM staff</p>	<p>1) Tactical supplier management: 1.1) Buyer-supplier relationship management; 1.2) Supplier performance management; 1.3) Supplier negotiation management); 2) Strategic supplier management: 2.1) Supply base strategy; 2.2) Supply risk management</p> <p>1) PSM authority: 1.1) Internal perception; 1.2) Cross-functional integration; 1.3) Functional transparency); 2) PSM tools: 2.1) E-tools; 2.2) RFX tools</p> <p>1) Target management: 1.1) Target setting system; 1.2) Performance tracking; 1.3) Incentive system; 2) Talent management: 2.1) Knowledge management; 2.2) Skills management; 2.3) Career management</p> <p>NARASIMHAN ET AL. (2001); NARASIMHAN/ DAS (2001)</p>	<p>Control Variable not applied</p> <p>Mediator Variable not applied</p> <p>Moderator Variable not applied</p>
<p>LAWSON ET AL. (2009)</p> <p>IJPR</p>	<p>Strategic purchasing</p>	<p>1) The purchasing function has a formally written long-range plan (e.g. a 5 to 10 year plan); 2) Purchasing's long-range plan is reviewed and adjusted to match changes in the company's strategic plans on a regular basis; 3) Purchasing's long-range plan includes the various types of relationships to be established with suppliers</p> <p>CARR/ PEARSON (1999); CARTER/ NARASIMHAN (1993); HENDRICK/ ELLRAM (1993)</p>	<p>Control Variable not applied</p> <p>Mediator Variable 1) Socialization Mechanisms: 1.1) Cross-functional teams; 1.2) Joint workshops; 1.3) Co-location; 2) Supplier Integration: 2.1) The level of strategic partnership with suppliers; 2.2) The participation level of suppliers in the design stage; 2.3) The participation level of suppliers in the process of procurement and production; 2.4) The establishment of a quick ordering system; 3) Supplier Responsiveness: 3.1) Ability to modify product to meet our needs without excessive cost or time penalties; 3.2) Responsiveness to our schedule delivery changes without excessive cost or time penalties; 3.3) Ability to accept late 'mix' changes in orders; 3.4) Responsiveness to our schedule volume changes without excessive cost penalties</p> <p>Moderator Variable not applied</p>
<p>NARASIMHAN/ DAS (2001)</p> <p>JOM</p>	<p>Purchasing Practices</p> <p>Purchasing integration</p>	<p>1) Supply base leveraging; 2) Buyer-supplier relationship development; 3) Supplier performance evaluation</p> <p>1) Recommends and impacts changes in end products and inputs, based on supply markets analysis; 2) Primarily spend time in market and price/ cost analysis; 3) Participates in new product design; 4) Participates in process design and improvement; 5) Is measured/ rewarded on strategic contributions (new products/ technologies) to the company (new products/ technology, etc. vs. cost and efficiency metrics alone)</p> <p>MONCZKA/ TRENT/ CALLAHAN (1993); HANDFIELD (1993); DYER/ CHO/ CHU (1998); KAMATH/ LIKER (1994); WATTS/HAHN (1993); LASCELLES/ DALE (1990)</p>	<p>Control Variable not applied</p> <p>Mediator Variable Purchasing Practices in Model II: 1) Supply base leveraging; 2) Buyer-supplier relationship development; 3) Supplier performance evaluation</p> <p>Moderator Variable Model III: Purchasing integration (integration of strategic purchasing practices and goals with a firm's objectives; low, medium, high; the extent to which purchasing...): 1) Regularly attends strategy meeting; 2) Recommends and impacts changes in end products and inputs, based on supply market analysis; 3) Primarily (proportion of purchasing personnel who) spend time in market and price/cost analysis; 4) Participates in new product design; 5) Participates in process design and improvements; 6) Is measured/ rewarded on strategic contributions (new products/ technologies) to the company (new products/ technology, etc. vs. cost and efficiency metrics alone)</p>

<p>NARASIMHAN ET AL. (2001)</p> <p>POM</p>	<p>Purchasing competence</p>	<p>1) Empowerment: 1.1) Involvement - Job related decisions; 1.2) Involvement - Operational decisions; 1.3) Autonomy in jobs; 1.4) Job security; 2) Employee Competence: 2.1) Training for purchasing in quality and customer satisfaction; 2.2) Training for suppliers in quality and customer satisfaction; 2.3) Performance evaluation related to quality improvement; 3) Interaction Effectiveness – Tactical: 3.1) Purchasing’s interaction with production; 3.2) Purchasing’s interaction with quality control; 4) Interaction Effectiveness – NPD: 4.1) Interaction with engineering; 4.2) Purchasing’s interaction with research and development; 5) Buyer-Seller-Relationship Management: 5.1) Risk sharing for capital investment with suppliers; 5.2) Technical assistance and information sharing with suppliers; 5.3) Joint production planning with suppliers; 5.4) Sharing of cost savings with suppliers</p>	<p><i>Control Variable</i> not applied <i>Mediator Variable</i> not applied <i>Moderator Variable</i> not applied</p>
<p>PAGELL/ KRAUSE (2002)</p> <p>IJPR</p>	<p>Strategic consensus</p> <p>External fit</p>	<p>Agreement across functions regarding the firm’s strategic priorities <u>Note:</u> Strategic consensus (by summing the squared differences between the manufacturing and purchasing managers’ perceptions of the importance of all the items listed): 1) Quality (reliability); 2) Quality (durability); 3) Quality (conformance); 4) Delivery (speed, 2 items); 5) Delivery (reliability); 6) Flexibility (volume); 7) Flexibility (mix); 8) Cost (price); 9) Cost (total cost); 10) Innovation (product); 11) Innovation (process)</p> <p>Alignment between business strategy and environment BOYER/ MCDERMOTT (1999); VENKATRAMAN / CAMILLUS (1984)</p>	<p><i>Control Variable</i> 1) Environmental uncertainty; 2) Plant size <i>Mediator Variable</i> Internal fit (Alignment between functional strategies and business strategy, and between functional strategies) <i>Moderator Variable</i> not applied</p>
<p>PAULRAJ/ CHEN (2005a)</p> <p>IJISM</p>	<p>Model I: Environmental Uncertainty</p> <p>Model II: Strategic supply management</p>	<p>1) Supply uncertainty; 2) Demand uncertainty; 3) Technology uncertainty; 4) Customer focus; 5) Competitive priorities; 6) Top management support; 7) Information technology; 8) Supply structure</p> <p>1) Strategic purchasing: 1.1) PSM is included in the firm’s strategic planning process; 1.2) PSM function has a good knowledge of the firm’s strategic goals; 1.3) PSM performance is measured in terms of its contributions to the firm’s success; 1.4) PSM professionals’ development focuses on elements of the competitive strategy; 1.5) PSM department plays an integrative role in the PSM function; 1.6) PSM’s focus is on longer term issues that involve risk and uncertainty; 1.7) PSM function has a formally written long-range plan; 2) Long-term relationship: 2.1) We expect our relationship with key suppliers to last a long time; 2.2) We work with key suppliers to improve their quality in the long run; 2.3) The suppliers see our relationship as a long-term alliance; 2.4) We view our suppliers as an extension of our firm; 2.5) We give a fair profit share to key suppliers; 2.6) The relationship we have with key suppliers is essentially evergreen; 3) Supply base reduction: 3.1) We rely on a small number of high quality suppliers; 3.2) We maintain close relationship with a limited pool of suppliers; 4) Communication: 4.1) We share sensitive information (financial, production, design, research, and/ or competition); 4.2) Suppliers are provided with any information that might help them; 4.3) Exchange of information takes place frequently, informally and/or in a timely Manner; 4.4) We keep each other informed about events or changes that may affect the other party; 4.5) We have frequent face-to-face planning/communication; 4.6) We exchange performance feedback</p>	<p><i>Control Variable</i> not applied <i>Mediator Variable</i> Strategic supply management: 1) Strategic purchasing; 2) Long-term relationship; 3) Supply base reduction; 4) Communication <i>Moderator Variable</i> not applied</p>
<p>PAULRAJ/ CHEN (2005b)</p> <p>JSCM</p>	<p>Strategic purchasing</p>	<p>1) Purchasing is included in the firm’s strategic planning process; 2) The purchasing function has a good knowledge of the firm’s strategic goals; 3) Purchasing performance is measured in terms of its contributions to the firm’s success; 4) Purchasing professionals’ development focuses on elements of the competitive strategy; 5) Purchasing department plays an integrative role in the purchasing function; 6) Purchasing’s focus is on long-term issues that involve risk and uncertainty¹; 7) Purchasing has a formally written long-range plan¹ CARTER/ NARASIMHAN (1996); CARR/ SMELTZER (1997)</p>	<p><i>Control Variable</i> not applied <i>Mediator Variable</i> 1) Long-term relationship: 1.1) We expect our relationship with key suppliers to last a long time; 1.2) We work with key suppliers to improve their quality in the long run; 1.3) The suppliers see our relationship as a long-term alliance; 1.4) We view our suppliers as an extension of our company; 1.5) We give a fair profit share to key suppliers¹; 1.6) The relationship we have with key suppliers is essentially evergreen¹; 2) Communication: 2.1) We share sensitive information (financial, production, design, research and/or competition); 2.2) Suppliers are provided with any information that</p>

			<p>might help them; 2.3) Exchange of information takes place frequently, informally and/or in a timely manner; 2.4) We keep each other informed about events or changes that may affect the other party; 2.5) We have frequent face-to-face planning/ communication; 2.6) We exchange performance feedback¹; 3) Limited Number of Suppliers/ Supply base reduction: 3.1) We rely on a small number of high-quality suppliers; 3.2) We maintain close relationship with a limited pool of suppliers; 3.3) We receive multiple price quotes from suppliers before ordering¹; 3.4) We drop suppliers for price reasons¹; 3.5) We use hedging contracts in selecting our suppliers¹</p> <p><i>Moderator Variable</i> not applied</p>
<p>PAULRAJ/ CHEN (2007)</p> <p>JSCM</p>	<p>1a) Supply uncertainty</p> <p>1b) Demand uncertainty</p> <p>1c) Technology uncertainty</p> <p>2) Strategic supply management</p>	<p>1a.1) The suppliers consistently meet our requirements; 1a2) The suppliers produce materials with consistent quality; 1a 3)We have extensive inspection of incoming critical materials from suppliers¹; 1a4) We have a high rejection rate of incoming critical materials from suppliers¹</p> <p>1b1) Our master production schedule has a high percentage of variation in demand; 1b2) Our weekly demand fluctuates drastically from week to week; 1b3) Our weekly supply requirements vary drastically from week to week; 1b4) We keep weeks of inventory of the critical material to meet the changing demand¹; 1b5) The volume and/or composition of demand is difficult to predict¹</p> <p>1c1) Our industry is characterized by rapidly changing technology; 1c2) If we don't keep up with changes in technology, it will be difficult for us to remain competitive</p> <p>1) Strategic purchasing: 1.1) Purchasing is included in the firm's strategic planning process; 1.2) The purchasing function has a good knowledge of the firm's strategic goals; 1.3) Purchasing performance is measured in terms of its contributions to the firm's success; 1.4) Purchasing professionals' development focuses on elements of the competitive strategy; 1.5) Purchasing department plays an integrative role in the purchasing function; 1.6) Purchasing's focus is on longer term issues that involve risk and uncertainty¹; 1.7) The purchasing function has a formally written long-range plan¹; 2) Long-term relationship orientation: 2.1) We expect our relationship with key suppliers to last a long time; 2.2) We work with key suppliers to improve their quality in the long run; 2.3) The suppliers see our relationship as a long-term alliance; 2.4) We view our suppliers as an extension of our company; 2.5) We give a fair profit share to key suppliers¹; 2.6) The relationship we have with key suppliers is essentially evergreen¹; 3) Inter-firm Communication: 3.1) We share sensitive information (financial, production, design, research, and/or competition); 3.2) Suppliers are provided with any information that might help them; 3.3) Exchange of information takes place frequently, informally and/or in a timely manner; 3.4) We keep each other informed about events or changes that may affect the other party; 3.5) We have frequent face-to-face planning/communication; 3.6) We exchange performance feedback; 4) Cross-organizational teams: 4.1) We collocate employees to facilitate cross-functional integration; 4.2) We coordinate joint planning committees with our suppliers; 4.3) We promote task force teams with our suppliers; 4.4) We share ideas and information with our supplier through cross-functional teams; 4.5) We use supplier involved ad hoc teams based on our strategic objectives; 4.6) We encourage teamwork between our suppliers and us; 5) Supplier integration: 5.1) We involve key suppliers in the product design and development stage; 5.2) We have key supplier membership/participation in our project teams; 5.3) Our key suppliers have major influence on the design of new products; 5.4) There is a strong consensus in our firm that supplier involvement is needed in product design/development; 5.5) We involve our key suppliers in business and strategy planning¹; 5.6) We have joint planning committees/task forces on key issues with key suppliers¹</p>	<p><i>Control Variable</i> not applied</p> <p><i>Mediator Variable</i> Strategic supply management: 2.1) Strategic purchasing; 2.2) Long-term relationship orientation; 2.3) Communication; 2.4) Cross-organizational teams; 2.5) Supplier integration</p> <p><i>Moderator Variable</i> not applied</p>

<p>PAULRAJ ET AL. (2006)</p> <p>JPSM</p>	<p>Strategic purchasing</p>	<p>1) Purchasing is included in the firm's strategic planning process; 2) The purchasing function has a good knowledge of the firm's strategic goals; 3) The purchasing function has a formally written long-range plan; 4) Purchasing performance is measured in terms of its contributions to the firm's success; 5) Purchasing professionals' development focuses on elements of the competitive strategy; 6) Purchasing's focus is on longer-term issues that involve risk and uncertainty; 7) Top management considers purchasing to be a vital part of our corporate strategy; 8) Purchasing's views are important to most top managers; 9) The chief purchasing officer has high visibility within top management; 10) Top management emphasizes the purchasing function's strategic role; 11) Purchasing department plays an integrative role in the purchasing function.¹</p> <p>CARR/ SMELTZER (1999b); CAVINATO (1999); PEARSON/ ELLRAM/ CARTER (1996); FERGUSON ET AL. (1996); RECK/ LONG (1988); ROZEMEIJER/ VAN WEELE/ WEGGEMAN (2003); CARR/ SMELTZER (1997); MCGRATH/ MACMILLAN/ TUSHMAN (1992); MCIVOR/ HUMPHREYS/ MCALEER (1997)</p>	<p><i>Control Variable</i> not applied</p> <p><i>Mediator Variable</i> not applied</p> <p><i>Moderator Variable</i> not applied</p>
<p>SÁNCHEZ-RODRÍGUEZ (2009)</p> <p>JBIM</p>	<p>Strategic purchasing</p>	<p>1) Purchasing is actively involved in the company's planning process; 2) Purchasing has a long-term plan (more than 2 years); 3) The top purchasing manager is located in the top higher levels of the organizational hierarchy; 4) The purchasing strategy is consistent with the firm's corporate strategy</p>	<p><i>Control Variable</i> not applied</p> <p><i>Mediator Variable</i> Supplier development 1) Plant visits to suppliers; 2) Supplier reward and recognition; 3) Collaboration with suppliers in materials improvement; 4) Providing training to suppliers; 5) Sharing of cost and quality information by the supplier; 6) Supplier involvement in the buyer's product design process</p> <p><i>Moderator Variable</i> not applied</p>
<p>SCHOENHERR/ MABERT (2011)</p> <p>POM</p>	<p>Three strategy types</p>	<p>Three clusters 1) Strategists, 2) Opportunists and 3) Responders based on the four primary objectives purchasing efficiency (1-3), price focus (4-5), bundle building (6-8) and supply security (9-11)</p> <p>Strategic purchasing goals: 1) Supply base consolidation; 2) A resulting simpler purchasing environment; 3) More efficient purchasing; 4) Achieving the best price possible; 5) Making the bidding as competitive as possible; 6) Combining attractive and unattractive items in the bundle; 7) Avoiding "cherry-picking"; 8) Finding new supplier(s); 9) Securing of supply; 10) Having the least possible risk in sourcing the bundle; 11) Having a collaborative buyer-supplier relationship</p>	<p><i>Control Variable</i> 1) Purchase importance; 2) Market uncertainty; 3) Supply base availability; 4) Buyer bargaining power; 5) Item experience; 6) Supply base experience</p> <p><i>Mediator Variable</i> not applied</p> <p><i>Moderator Variable</i> not applied</p>
<p>SHAO ET AL. (2012)</p> <p>IJPE</p>	<p>PSM performance drivers</p>	<p>1) Objective alignment: 1.1) Alignment with strategic suppliers with respect to research and technology strategy; 1.2) Alignment with strategic suppliers with respect to logistics strategy; 1.3) Alignment with strategic suppliers with respect to operations strategy; 1.4) Alignment with strategic suppliers with respect to risk management strategy; 1.5) Alignment with strategic suppliers with respect to financing strategy; 2) Activity alignment: 2.1) Our strategic suppliers provide good performance concerning delivery flexibility as required; 2.2) Our strategic suppliers provide good performance concerning short-term development and introduction of new products as required; 2.3) Our strategic suppliers provide good performance concerning short-term production volume change as required; 2.4) We cooperate extensively with our strategic suppliers concerning product and process improvement; 2.5) Our strategic suppliers provide good performance concerning corporate financing governance compliance as required</p> <p>RONDINELLI ET AL. (2001); RYAN (1996); SADLOVSKA/ ENSLOW (2006a); WARD/ DURAY (2000); ASHENBAUM (2006); CARTER ET AL. (2005b); MONCZKA/ CARTER (1978)</p>	<p><i>Control Variable</i> not applied</p> <p><i>Mediator Variable</i> 1) Cost saving: 1.1) Price negotiations; 1.2) Supply bundling; 1.3) Specification optimization; 1.4) Standardization, design-to-cost; 2) Contribution to sales increase: 2.1) Reduction of development time for new products/services; 2.2) Innovation development with suppliers; 2.3) Innovation identification within the supply base; 2.4) Product/Service value improvement; 3) Reduction of working capital: 3.1) Inventory optimization; 3.2) Cash management optimization; 3.3) Reduction of financing costs; 3.4) Financing optimization concerning goods purchased; 4) Reduction of supply risks: 4.1) Reduction of risks concerning products/services availability; 4.2) Reduction of supplier risks; 4.3) Reduction of supply organization risks; 4.4) Reduction of currency risks</p> <p><i>Moderator Variable</i> not applied</p>

SU (2013) IMDS	Strategic sourcing	1) Sourcing's long-range plan is reviewed and adjusted to match changes in the company's strategic plans on a regular basis; 2) Sourcing's long-range plan includes developing relationships with key suppliers; 3) Top management emphasizes the strategic role of sourcing function. CARR/ PEARSON (2002)	Control Variable not applied Mediator Variable 1) Buyer-supplier relationship: 1.1) We are loyal to key suppliers; 1.2) We have very frequent face-to face planning meetings or communications with key suppliers; 1.3) There is high corporate level communication on important issues with key suppliers; 1.4) Sourcing can influence key supplier's responsiveness to the purchasing requirement; 2) Supplier Evaluation: 2.1) We have a formal supplier certification program; 2.2) Our company has a formal system to track the performance of the suppliers we deal with; 2.3) Our company has a formal program for evaluating and recognizing suppliers Moderator Variable not applied
SU/ GARGEYA (2012b) SOIJ	Strategic sourcing	1) Top management emphasizes the strategic role of sourcing function; 2) Sourcing's long-range plan includes developing relationships with key suppliers; 3) Sourcing function has active interaction with other functions (e.g. manufacturing, marketing, etc.) CHEN/ PAULRAJ/ LADO (2004); CARR/ PEARSON (1999, 2002); CARR/ SMELTZER (1999a, 2000)	Control Variable not applied Mediator Variable Sourcing capability: 1) Awareness of cross-cultural business practices; 2) Managing international leadtime risk or uncertainty; 3) Knowledge of the sourcing location for critical purchased items; 4) International negotiation skills and abilities Moderator Variable not applied

Legende: ¹ Dropped items (during purification). ² Deleted after exploratory factor analysis. ³ Deleted after confirmatory factor analysis.

Anlage 4 Analyse der Operationalisierung der Performance-Konstrukte (abhängige Variable)

<i>Author(s)</i> <i>(Year)</i>	<i>Dependent Variable</i> (Performance Constr.)	<i>Variables/ Items</i>	<i>Source(s)</i>	<i>Measurement Characteristics</i>	<i>Data Sources</i>
BAIER ET AL. (2008)	Financial Performance (economic BP)	1) Annual reduction of COGS; 2) Annual sales growth; 3) ROA; 4) EBITDA margin <u>Note:</u> indicators standardized and then equally weighted to form an overall financial performance index (multi-item instrument); integrated measure with (average of) 4 items	NARASIMHAN/ DAS (2001); TAN/ KANNAN (1998); DAVID ET AL. (2002); CARR/ PEARSON (2002)	objective	Primary data (collected from publicly available databases such as Research Insight, Bloomberg and Amadeus as well as from annual reports published on corporate Web sites)
BERNADES (2010)	Customer Responsiveness (operational BP)	1) Develop new products in anticipation of customer needs; 2) Incorporate the latest technologies in our products to satisfy customer needs; 3) Offer products if we identify a new market segment; 4) Respond at once if customer's needs change; 5) Respond quickly to special customer request; 6) Be proactive in shaping customer's needs rather than being reactive <u>Note:</u> integrated measure with 6 items (operationalized by items reflecting the ability of the firm to respond or anticipate customer needs)	KOHLI/ JAWORSKI (1990); NARVER/ SLATER (1990); SLATER/ NARVER (1994); DESHPANDÉ ET AL. (1993)	perceptual; self-reported; subjective (relative to major competitors)	Primary data
BERNADES/ ZSIDISIN (2008)	Customer Responsiveness (operational BP)	1) Develop new products in anticipation of customer needs; 2) Incorporate the latest technologies in our products to satisfy customer needs; 3) Offer products if we identify a new market segment; 4) Respond at once if customer's needs change ¹ ; 5) Respond quickly to special customer request ¹ ; 6) Be proactive in shaping customer's needs rather than being reactive <u>Note:</u> integrated measure with finally 4 items (operationalized by items reflecting the ability of the firm to respond or anticipate customer needs)	KOHLI/ JAWORSKI (1990); NARVER/ SLATER (1990); SLATER/ NARVER (1994); DESHPANDÉ ET AL. (1993)	perceptual; self-reported; subjective (relative to competitors)	Primary data

CARR/ PEARSON (1999)	Firm's Financial Performance (economic BP)	1) ROI; 2) Profit as a percent of sales; 3) NIT; 4) PV <u>Note:</u> integrated measure with 4 items	BRACKER/ PEARSON (1986); CARTER/ NARASIMHAN (1993); HENDRICK/ ELLRAM (1993)	perceptual; self-reported; subjective (relative to/ over the 5 past years) + quasi-objective (objective ROI data for 5 consecutive years back was compared for 48 firms; based on a comparison of objective data, the data collected from the respondents was reasonably reliable)	Primary data
CARR/ PEARSON (2002)	Firm's Financial Performance (economic BP)	1) ROI; 2) Profit as a percent of sales; 3) NIT; 4) Firm's market share <u>Note:</u> integrated measure with 4 items	CARR/ PEARSON (1999)	perceptual; self-reported; subjective (relative to x years ago/ over the past 3 years) + quasi-objective (objective data for financial performance obtained from a published financial Compustat database for 3 consecutive years to establish a trend)	Primary data (data from CARR/ PEARSON 1999) → secondary data to compare to the subjective data provided by the respondents (objective data was available for 41 firms) → the subjective data matched the objective data at least 71 % of the time for ROI and NIT)
CARR/ SMELTZER (1999b)	Firm's Financial Performance (economic BP)	1) ROI; 2) Profits as a percent of sales; 3) Sales <u>Note:</u> integrated measure with 3 items	CARR/ PEARSON (1999)	perceptual; self-reported; subjective (relative to/ over the past 5 years)	Primary data (data from CARR/ PEARSON 1999)
CHEN/ PAULRAJ/ LADO (2004)	Buyer Performance (operational + economic BP)	Customer responsiveness 1) Rapid confirmation of customer orders; 2) Rapid handling of customer complaints <u>Note:</u> integrated measure with 2 items (defined as a firm's ability to respond in a timely manner to the needs and wants of its customers) Financial performance 1) ROI; 2) Profits as a percent of sales; 3) NIT <u>Note:</u> integrated measure with 3 items	STALK/ HOUT (1990) CARR/ SMELTZER (1999b); JAYARAM ET AL. (1999); KATHURIA (2000)	perceptual; self-reported; subjective (relative to/ over the past 3 years)	Primary data
CHIANG ET AL. (2012)	Firm's Supply Chain Agility (operational BP)	Customer responsiveness 1) Responsiveness to firm's immediate customer; 2) Satisfaction of end customers in the supply chain; 3) Responsiveness to expectations of end customers in the supply chain Demand response 1) Our supply chain is capable of responding to market demand by providing a wide range of product; 2) Our supply chain is able to leverage the competencies of our partners to respond to market demands; 3) Our supply chain is capable of forecasting market demand Joint planning 1) Joint problem-solving activity with our supplier; 2) Representation of our suppliers in product design teams; 3) Involvement of key suppliers in continuous improvements <u>Note:</u> firm's strategic flexibilities as integrated measure with 3 sub-constructs and each with 3 items	BRAUNSCHEIDEL/ SURESH (2009); KOCABASOGLU (2002)	perceptual; self-reported; subjective	Primary data

<p>COUSINS ET AL. (2006)</p>	<p>Supplier Relationship Outcomes (operational PSP)</p> <p>Production Performance (operational BP)</p> <p>Financial Performance (economic BP)</p>	<p>1) We have continued to be able to improve product design performance; 2) We have continued to be able to improve process design; 3) We have continued to be able to improve product quality; 4) We have continued to reduce lead; 5) Our partnerships have contributed to increasing product sales <u>Note:</u> integrated measure with 5 items (defined as the performance through these partnerships in the last 2 or 3 years)</p> <p>1) Product quality; 2) Delivery speed; 3) Delivery reliability; 4) Flexibility of production <u>Note:</u> integrated measure with 4 items</p> <p>1) ROI; 2) ROS; 3) Profit growth; 4) ROA <u>Note:</u> integrated measure with 4 items</p>	<p>WOMACK ET AL. (1990)</p> <p>CARR/ SMELTZER (2000)</p> <p>CARR/ PEARSON (2002); CARR/ SMELTZER (2000)</p>	<p>perceptual; self-reported; subjective (relative to that of their major competitors)</p>	<p>Primary and secondary data from Compustat</p>
<p>DAS/ NARASIMHAN (2000)</p>	<p>Manufacturing Performance (operational MP)</p>	<p>1) New product introduction time performance; 2) Manufacturing cost performance; 3) Quality performance; 4) Delivery performance (cycle time reduction goals, delivery speed and dependability); 5) Customization responsiveness performance <u>Note:</u> 1) Aggregate MP (integrated measure with 5 items) regressed against purchasing competence; 2) Components of purchasing competence regressed against aggregate MP (integrated measure with 5 items); 3) 4 purchasing competence factors regressed on 5 MP items</p>	<p>ROTH/ MILLER (1990); DEAN/ SNELL (1991); MILLER/ ROTH (1994)</p>	<p>perceptual; self-reported; subjective (relative to internal and external competitive goals)</p>	<p>Primary data</p>
<p>DAVID ET AL. (2002)</p>	<p>Financial Performance (economic BP)</p> <p>Purchasing Operational Efficiency (operational PSP)</p>	<p>ROA before interest and extraordinary events <u>Note:</u> Overall firm financial performance used as single measure</p> <p>1) Purchasing amount per dollar of purchasing operating expenses; 2) Purchase amount per employee; 3) Inventory turnover <u>Note:</u> integrated measure with 3 items</p>	<p>RAMASWAMY ET AL. (1994); ROGERS ET AL. (1999); ITTNER ET AL. (1999)</p>	<p>objective</p>	<p>Primary archival data and secondary (objective ROA) data from Compustat</p>
<p>FOERSTL ET AL. (2013)</p>	<p>Purchasing Performance (operational PSP)</p> <p>Firm's Financial Performance (economic BP)</p>	<p>1) Direct costs; 2) Total landed costs; 3) Quality; 4) Lead times; 5) Contribution to innovation <u>Note:</u> mediating construct; integrated measure with 5 items (3 year mean)</p> <p>1) ROA 2) ROE; 3) Reduction of COGS; 4) EBITDA growth; 5) Sales growth <u>Note:</u> integrated measure with 5 items (3 year mean)</p>	<p>GONZÁLEZ-BENITO (2007); KRAUSE ET AL. (2001); PAGELL/ KRAUSE (2002); GONZÁLEZ-BENITO (2007); DAVID ET AL. (2002)</p>	<p>subjective; (relative to major industry competitor)</p>	<p>Primary data and secondary data from database</p>
<p>GOH/ LAU/ NEO (1999)</p>	<p>(Model II) Business Performance (economic BP)</p>	<p>1) Able to perform well relative to industry leader; 2) Reports superior overall performance; 3) Maintains good long-term profitability <u>Note:</u> integrated measures with 3 items</p>	<p>JAWORSKI/ KOHLI (1993)</p>	<p>perceptual; self-reported; subjective (relative to industry leader)</p>	<p>Primary data</p>
<p>GONZÁLEZ-BENITO (2007)</p>	<p>Business Performance (operational + economic BP)</p>	<p>Commercial performance 1) Sales growth; 2) Reputation and image; 3) Customer satisfaction; 4) Market share (of the main product); 5) Success of new product launches <u>Note:</u> integrated measure with 5 items</p> <p>Financial performance 1) ROI; 2) Profits as percent of sales; 3) Labor productivity (sales/employees) <u>Note:</u> integrated measure with 3 items</p>	<p>VICKERY (1991); SMITH/ REECE (1999); CHEN/ PAULRAJ (2004); WARD/ DURAY (2000)</p>	<p>perceptual; self-reported; subjective (relative to their competitors)</p>	<p>Primary data</p>

GONZÁLEZ-BENITO (2010)	Business Performance (operational + economic BP)	Commercial performance 1) Sales growth; 2) Reputation and image; 3) Customer satisfaction; 4) Market share (of the main product); 5) Success of new product launches <u>Note:</u> integrated measure with 5 items Financial performance 1) ROI; 2) Profits as percent of sales; 3) Labor productivity (sales/employees) <u>Note:</u> integrated measure with 3 items	GONZÁLEZ-BENITO (2007)	perceptual; self-reported; subjective (relative to their competitors)	Primary data
KERN ET AL. (2011)	Purchasing Performance (operational PSP)	1) Cost reductions; 2) Quality; 3) Delivery; 4) Flexibility <u>Note:</u> integrated measure with 4 items	YOUNDT ET AL. (1996)	perceptual; self-reported; subjective (relative to major competitors)	Primary data
LAWSON ET AL. (2009)	Buyer Performance (operational PSP)	1) We have continued to be able to improve product design performance through this supplier relationship; 2) We have continued to be able to improve process design through this supplier relationship; 3) We have continued to be able to improve product quality through this supplier relationship. <u>Note:</u> integrated measure with 3 items	KOTABE ET AL. (2003)	perceptual; self-reported; subjective (relative to the past two to three years)	Primary data
NARASIMHAN/DAS (2001)	Manufacturing Performance (operational MP)	1) Manufacturing cost reduction (manufacturing cost reduction relative to internal goals/ primary competition); 2) Quality performance (number of defects/ production reduction relative to internal goals/ relative to primary competition); 3) New product introduction time reduction performance (relative to internal goals/ primary competition); 4) Delivery performance (delivery speed relative to internal goals, relative to primary competition; delivery dependability relative to internal goals, relative to primary competition); 5) Customization responsiveness performance (meeting customization requests relative to internal goals, relative to primary competition) <u>Note:</u> composite construct by combining and aggregating scores on the 5 MP dimensions and 12 items	MILLER/ ROTH (1994); DEAN/ SNELL (1991)	perceptual; self-reported; subjective (relative to internal goals and competitors)	Primary data
NARASIMHAN ET AL. (2001)	Quality management performance and customer satisfaction (operational + economic BP)	1) Actual percentage of market share for the firm's principal product ¹ ; 2) Degree of achievement of Total Quality Management goals (degree of achievement of quality improvement goals in the last two years); 3) Degree of achievement of customer satisfaction goals (degree of achievement of customer satisfaction goals in the last two years) <u>Note:</u> firm performance indicators only separately and not aggregated measured	developed by the authors; respondents were asked to report the actual percentage of market share for the firm's principal product	perceptual; self-reported; subjective (in the last two years)	Primary data
PAGELL/ KRAUSE (2002)	Plant Performance (operational BP)	1) Unit price of manufacturing; 2) Total cost; 3) Product quality; 4) Delivery speed; 5) Delivery dependability; 6) Flexibility; 7) Speed of new product introductions <u>Note:</u> integrated measure with 7 items	BEARD/ DESS (1981)	perceptual; self-reported; subjective (relative to major industry competitors)	Primary data
PAULRAJ/ CHEN (2005a)	Buyer Performance (operational BP)	1) Quality; 2) Delivery speed; 3) Delivery reliability/ consistency; 4) Delivery lead-time; 5) Production lead-time; 6) Volume flexibility; 7) Rapid confirmation of customer orders; 8) Rapid handling of customer complaints; 9) Customer satisfaction <u>Note:</u> integrated operational measures with 9 items	MCDERMOTT/ STOCK (1999); VALSAMAKIS/ SPRAGUE (2001); STALK/ HOUT (1990)	perceptual; self-reported; subjective	Primary data
PAULRAJ/ CHEN (2005b)	Dyadic Quality Performance (operational BP)	1) Supplier conformance quality; 2) Buyer conformance quality <u>Note:</u> integrated measure with 2 items (measures the buyer and supplier firm's ability to produce high-quality products that conform to quality specifications)	SHIN ET AL. (2000)	perceptual; self-reported; subjective	Primary data

PAULRAJ/ CHEN (2007)	Buyer Performance (operational BP)	1) Quality (Product conformance to specifications); 2) Production costs; 3) Volume flexibility; 4) Delivery speed; 5) Delivery reliability/ dependability; 6) Rapid confirmation of customer orders; 7) Rapid handling of customer complaints <u>Note:</u> integrated measure with 7 items	STALK/HOUT (1990)	perceptual; self-reported; subjective	Primary data
PAULRAJ ET AL. (2006)	Supplier (Procurement) Performance Buyer Performance (operational BP) Financial Performance (economic BP)	1) Quality; 2) Cost; 3) Volume flexibility; 4) Scheduling flexibility; 5) On-time delivery; 6) Delivery reliability/ consistency; 7) Prompt response <u>Note:</u> SP is excluded from this SLR per definition. 1) Quality (product conformance to specifications); 2) Production costs; 3) Volume flexibility; 4) Delivery speed; 5) Delivery reliability/ dependability; 6) Rapid confirmation of customer orders; 7) Rapid handling of customer complaints; 8) Customer satisfaction <u>Note:</u> integrated operational measures with 8 items 9) ROI; 10) Profits as a percent of sales; 11) NIT; 12) PV <u>Note:</u> integrated measure with 4 items	KRAUSE ET AL. (2000) PAULRAJ/ CHEN (2005a); STALK/ HOUT (1990) CARR/ PEARSON (1999); CARR/ SMELTZER (1999b); CARTER/ NARASIMHAN (1996)	perceptual; self-reported; subjective (related to performance changes in the past 2-3 years; SP related to the top one or two suppliers) objective	Primary data
SÁNCHEZ-RODRÍGUEZ (2009)	Purchasing Performance (operational PSP)	1) Cost of materials (actual versus target cost of materials); 2) Quality of materials; 3) On-time delivery; 4) Inventory performance (level of achievement of inventory goals); 5) Internal customer satisfaction <u>Note:</u> integrated measure with 5 items	GIUNIPERO (1990); CAVINATO (1987); STANLEY/ WISNER (1998, 2001; 2002)	perceptual; self-reported; subjective	Primary data (and database)
SCHOENHERR/ MABERT (2011)	Purchase Performance (operational PSP)	1) The bundle received competitive bids; 2) Bundling created internal synergies and savings (lower administrative costs); 3) We would repeat the bundling again for the same items in the future; 4) We achieved our goals; 5) Bundling increased our bargaining power with suppliers; 6) The final purchase price we had to pay for the entire bundle was lower than expected; 7) We regret the decision to bundle the items together <u>Note:</u> integrated measure/ aggregate score of the 7 items (defined as buyer's perceived success of the multi-item RFQ and the associated negotiations)	CANNON/ PERREAULT (1999)	perceptual; self-reported; subjective	Primary data (multi-item RFQ)
SHAO ET AL. (2012)	Strategic Supply Performance Outcomes (operational PSP) Financial Performance (economic BP)	Cost saving 1) Price negotiations; 2) Supply bundling; 3) Specification optimization 4) Standardization, design-to-cost Contribution to sales increase 1) Reduction of development time for new products/services; 2) Innovation development with suppliers; 3) Innovation identification within the supply base; 4) Product/Service value improvement Reduction of working capital 1) Inventory optimization; 2) Cash management optimization; 3) Reduction of financing costs; 4) Financing optimization concerning goods purchased Reduction of supply risks 1) Reduction of risks concerning products/services availability; 2) Reduction of supplier risks; 3) Reduction of supply organization risks; 4) Reduction of currency risks <u>Note:</u> mediating construct; integrated measure with a total of 16 items 1) ROE; 2) ROI; 3) ROS; 4) Sales volume; 5) Market share <u>Note:</u> integrated measure with 5 items	ASHENBAUM (2006); CARTER ET AL. (2005a, b); MONCZKA/ CARTER (1978); KADIPASOGLU ET AL. (1999); NARASIMHAN/ DAS (2001); WEIR ET AL. (2000) HAMPTON/ WAGNER (1989); RAPPAPORT (1998); SADLOVSKA/ ENSLOW (2006b) ZSIDISIN (2003a, b) CARR/PEARSON (2002); CARR/ SMELTZER (2000); ELLRAM/ LIU (2002)	perceptual; self-reported; subjective + objective	Primary data (and database)

SU (2013)	Sourcing Performance (operational PSP)	1) The purchasing function is very important to the overall company success; 2) The purchasing function adds value to the firm in production/ operations/ logistics; 3) Purchasing contributes to the firm's bottom-line profit <u>Note:</u> integrated measure with 3 items	items developed with the help of industrial managers and literature review	subjective; integrated measure with 3 items	Primary data
SU/ GARGEYA (2012b)	Firm Business Performance (economic BP)	1) ROA; 2) Profit margin (net income as a percent of sales); 3) Market share <u>Note:</u> integrated measure with 3 items	CHEN/ PAULRAJ/ LADO (2004); CARR/ PEARSON (2002); CARR/ SMELTZER (2000); TAN/ LYMAN/ WISNER (2002); TRACEY/ TAN (2001)	perceptual; self-reported; subjective (relative to the past three years)	Primary data

Legende Business Performance (BP); Purchasing and Supply Performance (PSP); Manufacturing Performance (MP); Supplier Performance (SP)

¹ Dropped items (during purification). ² Deleted after exploratory factor analysis.

Anlage 5 Analyse der Forschungsschwerpunkte und Bewertung der wesentlichen Befunde (relationale Beziehung)

<i>Author(s)</i> <i>(Year)</i>	<i>Research Focus and Objectives</i>	<i>Hypotheses</i>	<i>Support or Rejection of Hypotheses</i>
BAIER ET AL. (2008)	This study suggests that the relative fit between business strategy and purchasing strategy (strategic alignment), and between purchasing strategy and purchasing practices (purchasing efficacy) is key to achieving superior financial performance.	H1a: The ideal profiles of purchasing competitive priorities will differ across SBUs following different business strategies. H1b: The closer a SBU matches an ideal profile of purchasing competitive priorities and business strategy, the better its financial performance. H2a: The ideal profiles of purchasing practices will differ across SBUs following different purchasing competitive priorities. H2b: The closer a SBU matches an ideal profile of purchasing practices and purchasing competitive priorities, the better its financial performance.	<i>H1a-H2b supported</i>
BERNADES (2010)	This study explores factors associated with the relational embeddedness of social capital, and investigates the role of supply management on the process.	H1: Network interactions in which the focal firm assigns strategic status to purchasing will have higher levels of social capital in the form of relational embeddedness. H2: Dyadic network interactions in which the focal firm assigns strategic status to purchasing will have higher levels of network-shared cognition. H3: Dyadic network interactions characterized by high levels of relational embeddedness will have higher levels of network-shared cognition. H4: Dyadic network interactions characterized by shared cognition will be related to higher levels of customer responsiveness for a focal firm.	<i>H1-H4 supported</i>
BERNADES/ ZSIDISIN (2008)	This study examines the effects of strategic supply management on a firm's relational embeddedness and network scanning, and then explores the relationships between those intermediate benefits and customer responsiveness.	H1: Strategic supply management is positively related to network relational embeddedness. H2: Strategic supply management is positively related to network scanning. H3: Network relational embeddedness is positively related to network scanning. H4: Network relational embeddedness is positively related to customer responsiveness. H5: Network scanning is positively related to customer responsiveness.	<i>H1- H3, H5 supported; H4 not supported</i>
CARR/ PEARSON (1999)	This study examines the relationships between strategic purchasing and its influence on supplier evaluation systems, buyer-supplier relationships, and firm's financial performance.	H1: Strategic purchasing has a positive impact on supplier evaluation systems. H2: Strategic purchasing has a positive impact on buyer-supplier relationships. H3: Strategic purchasing has a positive impact on firm's financial performance. H4: Supplier evaluation systems have a positive impact on buyer-supplier relationships. H5: Buyer-supplier relationship has a positive impact on firm's financial performance.	<i>H1-H5 supported</i>
CARR/ PEARSON (2002)	This study tests the relationship among purchasing/ supplier involvement, strategic purchasing and firm's financial performance.	H1: Purchasing/ supplier involvement has a positive impact on strategic purchasing in the firm. H2: Strategic purchasing has a positive impact on firm's financial performance.	<i>H1-H2 supported</i>

CARR/ SMELTZER (1999b)	This study tests the relationship between strategic purchasing, supply chain management (supplier communication, supplier responsiveness, change in the supplier market), and firm performance.	H1: Strategic purchasing is positively related to the supplier's responsiveness to purchasing requirements. H2: Strategic purchasing is positively related to changes in the supplier market. H3: Strategic purchasing is positively related to the level of communications between firms in the supply chain. H4: Strategic purchasing is positively related to the firm's performance.	<i>H1-H4 supported</i>
CHEN/ PAULRAJ/ LADO (2004)	This study examines the relationships among strategic purchasing, supply management (capabilities), customer responsiveness and firm's financial performance.	H1: Strategic purchasing will have a positive effect in fostering buyer-supplier communication. H2: Strategic purchasing will have a positive effect in fostering close relationships with a limited number of suppliers. H3: Strategic purchasing will have a positive effect in fostering long-term buyer-supplier relationships. H4: Close working relationships with a limited number of suppliers will have a positive effect on customer responsiveness. H5: Communication between buyers and supplier will have a positive effect on customer responsiveness. H6: Long-term relationship orientation will have a positive effect on customer responsiveness. H7: Customer responsiveness is positively related to buyer firm's financial performance.	<i>H1-H3, H5-H7 supported; H4 not supported</i>
CHIANG ET AL. (2012)	This study investigates whether a firm's strategic flexibility is a possible mediator between strategic sourcing and a firm's supply chain agility, affecting the direct relationship between strategic sourcing and agility.	H1: Strategic sourcing has a positive impact on a firm's supply chain agility. H2: Strategic sourcing has a positive impact on a firm's strategic flexibility. H3: A firm's strategic flexibility has a positive impact on the firm's supply chain agility. H4: There is a significant mediation effect from a firm's strategic flexibility on the relationship between strategic sourcing and the firm's supply chain agility.	<i>H1-H3 supported; H4 not supported</i>
COUSINS ET AL. (2006)	This study investigates whether there exist different purchasing function configurations, and if so, what characteristics each configuration possesses, and how they relate to various supplier and organizational performance outcomes.	H1: Purchasing functions within organizations can be classified based on their level of involvement in strategic planning, status in the eyes of top management, degree of internal integration, and purchasing skills. H2: Based on different configurations of purchasing characteristics, different purchasing functions will have higher levels of performance outcomes.	<i>H1-H2 supported</i>
DAS/ NARASIMHAN (2000)	This study develops the purchasing competence construct and explores its relationship with different manufacturing practices and related MP outcomes.	Hs not explicitly formulated by the author	<i>Hs supported</i>
DAVID ET AL. (2002)	This study examines a performance contingency effect between product competitive strategy and organization design using an archival approach. RQ 1: Do firms that achieve a congruency between the characteristics of their product strategy and the organization design characteristics of their purchasing management practices exhibit higher overall financial performance than those firms that fail to do so? RQ 2: Do firms that achieve a congruency between purchasing management design and product strategy exhibit higher efficiency at the purchasing management level than those failed to do so?	H1: The degree of congruency between a firm's product strategy and its design of purchasing management will be positively associated with the firm's performance. H2: Purchasing efficiency is more likely to be associated with firms pursuing cost efficiency with a centralized design than with those pursuing differentiation with a decentralized design.	<i>H1-H2 supported</i>
FOERSTL ET AL. (2013)	This study develops a set of 9 hypotheses linking 4 PSM practices (talent management, performance management, cross-functional integration and functional coordination) directly to purchasing performance and indirectly to financial performance.	H1: Cross-functional integration has a positive effect on purchasing performance. H2: Functional coordination has a positive effect on purchasing performance. H3: Purchasing performance has a positive effect on firm performance. H4a: Talent management has a positive effect on cross-functional integration. H4b: Talent management has a positive effect on functional coordination. H4c: Talent management has a positive effect on purchasing performance. H5a: Performance management has a positive effect on cross-functional integration. H5b: Performance management has a positive effect on functional coordination. H5c: Performance measurement has a positive effect on purchasing performance.	<i>H1-H5b supported; H5c not supported</i>

GOH/LAU/ NEO (1999)	<p>This study explores 1) the CEO's perceptions and expectations of the purchasing function in Singapore, 2) the relationship between the corporate competitive strategy and the CEO's perceptions and expectations of the purchasing function, 3) the effects of purchasing-supplier relationships on business performance, 4) the effects of the purchasing function's involvement in team participation on business performance and 5) the effects of the purchasing function's integration with other functions on business performance.</p> <p>RQ (overall): How can the CEO's perception of purchasing affect business performance? RQ 1: With the growing importance of purchasing, how has the CEO's perception of the purchasing function changed? RQ 2: More important, how will this perception shape purchasing-supplier partnerships as well as affect purchasing's role in team decision making in organizations today?</p>	<p>H1a: The more an organization emphasizes cost leadership in its competitive strategy, the more cost-focused are the purchasing objectives.</p> <p>H1b: The more an organization emphasizes differentiation in its competitive strategy, the more quality-focused are the purchasing objectives.</p> <p>H1c: The more an organization emphasizes cost leadership in its competitive strategy, the less quality-focused are the purchasing objectives.</p> <p>H1d: The more an organization emphasizes differentiation in its competitive strategy, the less cost-focused are the purchasing objectives.</p> <p>H2: The more important purchasing is perceived to be by the CEO, the greater the extent of the purchasing-supplier partnership.</p> <p>H3: The more important purchasing is perceived to be by the CEO, the greater the extent of the purchasing function's involvement in team decision making.</p> <p>H4: The more important purchasing is perceived to be by the CEO, the greater the extent of purchasing's integration with other functions.</p> <p>H5a: The greater the extent of the purchasing supplier partnership, the better the business performance of the organization.</p> <p>H5b: The greater the extent of purchasing's involvement in team decision making, the better the business performance of the organization.</p> <p>H5c: The greater the extent of purchasing's integration with other functions, the better the business performance of the organization.</p>	<p><i>H1a/b, H2, H5a-H5c supported; H1c/d, H3, H4 not supported</i></p>
GONZÁLEZ-BENITO (2007)	<p>This study examines purchasing's contribution to business performance depending on the degree to which purchasing capabilities fit with and support the business strategy.</p>	<p>H1: Purchasing efficacy, or the fit between purchasing strategic objectives and purchasing capabilities, has a positive effect on business performance.</p> <p>H2: The degree of strategic integration of the purchasing function positively moderates the relationship between purchasing efficacy and business performance.</p>	<p><i>H1 supported; H2 only supported when PSM efficacy is measured with index PE₂</i></p>
GONZÁLEZ-BENITO (2010)	<p>This study analyzes the effect of purchasing and supply strategies on business performance.</p>	<p>H1: Business performance is affected by the relative importance that the purchasing function assigns to the different generic competitive objectives (quality, cost, dependability, and flexibility).</p>	<p><i>H1 supported</i></p>
KERN ET AL. (2011)	<p>This study applies the stakeholder theory and multiple methods of data collection to develop and confirm a hierarchy-specific purchasing competence management framework for CPOs.</p>	<p>Hs not explicitly formulated by the author</p>	<p><i>Hs supported</i></p>
LAWSON ET AL. (2009)	<p>This study examines the effect of strategic purchasing on the firm's inter-organizational supply management practices of socialization, supplier integration and supplier responsiveness, together with relationship performance.</p>	<p>H1: Strategic purchasing has a positive effect on the level of socialization mechanisms.</p> <p>H2: Strategic purchasing has a positive effect on the level of supplier integration.</p> <p>H3: Strategic purchasing has a positive effect on the responsiveness characteristics of a firm's suppliers.</p> <p>H4: Socialization mechanisms are positively related with higher levels of buyer performance improvement.</p> <p>H5: Supplier integration is positively associated with higher levels of buyer performance improvement.</p> <p>H6: Supplier responsiveness is positively associated with higher levels of buyer performance improvement.</p>	<p><i>H1, H2, H5, H6 supported; H3, H4 not supported</i></p>
NARASIMHAN/DAS (2001)	<p>This study explicates the concept of purchasing integration and examines its relationships with purchasing practices and MP.</p>	<p>H1: Purchasing integration moderates the relationship between purchasing practices and MP.</p>	<p><i>H1 supported</i></p>
NARASIMHAN ET AL. (2001)	<p>This study tests the relationship of purchasing competence and firm performance.</p>	<p>Hs not explicitly formulated by the author</p>	<p><i>Hs supported</i></p>
PAGELL/ KRAUSE (2002)	<p>This study investigates whether firms' purchasing and manufacturing functions have a consensus regarding their competitive priorities and whether such a consensus leads to higher levels of performance.</p>	<p>H1: Plants where manufacturing and purchasing managers have consensus on strategic priorities will exhibit higher levels of performance than plants where manufacturing and purchasing managers do not have consensus on strategic priorities.</p>	<p><i>H1 supported</i></p>

PAULRAJ/ CHEN (2005a)	This study identifies the key driving forces that assist buyer firms in making their supply management strategic and successful. It then examines the effect of these driving forces on strategic supply management and the effect of strategic supply management on buyer's performance.	<p>H1: Strategic supply management will have a positive effect on buyer performance. H2: Environmental uncertainties will have a negative effect on strategic supply management. H3: Customer focus will have a positive effect on strategic supply management. H4: Competitive priorities will have a positive effect on strategic supply management. H5: Top management support will have a positive effect on strategic supply management. H6: Information technology will have a positive effect on strategic supply management. H7: Supply network structure will have a positive effect on strategic supply management.</p>	<i>H1, H3-H7 supported; H2 not supported</i>
PAULRAJ/ CHEN (2005b)	This study tests 1) the effects of strategic purchasing on a broader conceptualization of buyer-supplier relationships, characterized by the three key constructs of long-term relationships, supply base reduction and effective communication, and then 2) explores the interactions among these buyer-supplier relationship constructs, along with their impacts on dyadic quality performance.	<p>H1: Strategic purchasing has a positive effect on communication. H2: Strategic purchasing has a positive effect on supply base reduction. H3: Strategic purchasing has a positive effect on long-term relationships. H4: Supply base reduction has a positive effect on communication. H5: Supply base reduction has a positive effect on long-term relationships. H6: Long-term relationships have a positive effect on communication. H7: Communication has a positive effect on dyadic quality performance. H8: Long-term relationships have a positive effect on dyadic quality performance.</p>	<i>H1-H7 supported; H8 not supported</i>
PAULRAJ/ CHEN (2007)	This study explores the direct effect of supply chain uncertainties (demand, supply, and technology) on strategic supply management (comprising strategic purchasing, long-term relationship orientation, inter-firm communication, cross-organizational teams and supplier integration), and in turn, on the competitive advantage for buyer firms and their suppliers.	<p>H1: Demand uncertainty is positively related to strategic supply management initiatives. H2: Supply uncertainty is positively related to strategic supply management initiatives. H3: Technology uncertainty is positively related to strategic supply management initiatives. H4: Strategic supply management is positively related to supplier performance. H5: Strategic supply management is positively related to buyer performance. H6: Supplier performance is positively related to buyer performance under strategic supply management.</p>	<i>H2-H6 supported; H1 not supported</i>
PAULRAJ ET AL. (2006)	This study analyzes whether firms can achieve better supply integration (composed of relational, process, information, and cross-organizational team integration) moving towards more advanced stages in strategic purchasing (characterized by the strategic focus, strategic involvement of the purchasing function and the status and visibility of the purchasing professionals). Moreover, it examines if higher strategic levels of purchasing can result in improved performance for both the buying firm and their suppliers.	<p>H1a: The higher the strategic level of purchasing, the better the relational integration with its supply partners. H1b: The higher the strategic level of purchasing, the better the integration of processes with its supply partners. H1c: The higher the strategic level of purchasing, the better the integration of information with its supply partners. H1d: The higher the strategic level of purchasing, the better the integration of cross-organizational teams. H2: The higher the strategic level of purchasing, the better the firm's performance. H3: The higher the strategic level of purchasing, the better the performance of its suppliers.</p>	<i>H1-H3 supported</i>
SÁNCHEZ-RODRÍGUEZ (2009)	Strategic purchasing is proposed as an antecedent of supplier development practices and can create value for the buying firm in terms of better purchasing performance.	<p>H1: Strategic purchasing will be positively related to supplier development. H2: Supplier development will be positively related to purchasing performance. H3: Strategic purchasing will be positively and directly related to purchasing performance. H4: Supplier development mediates the relationship between strategic purchasing and purchasing performance.</p>	<i>H1-H4 supported</i>
SCHOENHERR/ MABERT (2011)	This study explores the interplay of the buyer's objectives in determining procurement strategy, the antecedents that may determine this strategy, and the subsequent impact on performance. These relationships are investigated within the context of four multi-item RFQs, for which the development of appropriate procurement strategies can be especially challenging.	<p>H1a: A heightened importance of the multi-item RFQ leads to a greater strategic emphasis in the buyer's procurement strategy. H1b: Increased market uncertainty present for the multi-item RFQ leads to lower strategic emphasis in the buyer's procurement strategy. H1c: Better supply base availability present for the multi-item RFQ leads to greater strategic emphasis in the buyer's procurement strategy. H1d: Heightened buyer bargaining power present for the multi-item RFQ leads to greater strategic emphasis in the buyer's procurement strategy. H1e: Better item experience/ knowledge present for the multi-item RFQ leads to greater strategic emphasis in the buyer's procurement strategy. H1f: Better supply base experience/ knowledge present for the multi-item RFQ leads to greater strategic emphasis in the buyer's procurement strategy. H2: A stronger strategic emphasis in the buyer's procurement strategy is associated with better perceived performance of the multi-item RFQ.</p>	<i>H1a, H1c-H2 supported; H1b not supported</i>

SHAO ET AL. (2012)	This study develops a multidimensional performance framework with supply performance drivers as antecedents and strategic supply performance outcomes as an intermediate construct, and investigates PSM's contribution to corporate performance.	<p>H1a: The objective alignment of buyers and suppliers has a positive effect on cost saving.</p> <p>H1b: The activity alignment of buyers and suppliers has a positive effect on cost saving.</p> <p>H2a: The objective alignment of buyers and suppliers has a positive effect on PSM's contribution to sales increase.</p> <p>H2b: The activity alignment of buyers and suppliers has a positive effect on PSM's contribution to sales increase.</p> <p>H2c: PSM's contribution to sales increase has a positive effect on corporate performance.</p> <p>H3a: The objective alignment of buyers and suppliers has a positive effect on the reduction of working capital.</p> <p>H3b: The activity alignment of buyers and suppliers has a positive effect on the reduction of working capital.</p> <p>H3c: The reduction of working capital has a positive effect on corporate performance.</p> <p>H4a: The objective alignment of buyers and suppliers has a positive effect on the reduction of supply risks.</p> <p>H4b: The activity alignment of buyers and suppliers has a positive effect on the reduction of supply risks.</p> <p>H4c: The reduction of supply risks has a positive effect on corporate performance.</p>	<i>H1a- H3b, H4a- H4c supported; H3c not supported</i>
SU (2013)	This study investigates performance outcomes of strategic sourcing, specifically examining how strategic sourcing affects buyer-supplier relationship, supplier evaluation, and sourcing performance.	<p>H1: Strategic sourcing has a positive impact on buyer-supplier relationship.</p> <p>H2: Strategic sourcing has a positive impact on supplier evaluation.</p> <p>H3: Supplier evaluation has a positive impact on buyer-supplier relationship.</p> <p>H4: Buyer-supplier relationship has a positive impact on sourcing performance.</p> <p>H5: Supplier evaluation has a positive impact on sourcing performance.</p> <p>H6: Strategic sourcing has a positive impact on sourcing performance.</p>	<i>H1-H3, H6 supported; H4, H5 not supported</i>
SU/ GARGEYA (2012b)	This study examines how strategic sourcing and sourcing capability impact firm performance in the US textile and apparel industry.	<p>H1: Strategic sourcing leads to greater emphasis on sourcing capability.</p> <p>H2: Strategic sourcing has a positive impact on firm performance.</p> <p>H3: Sourcing capability has a positive impact on firm performance.</p>	<i>H1, H2 supported; H3 not supported</i>

Legende: Hypothesis (H); Research Question (RQ); Request for Quotation (RFQ)

Anlage 6 Operationalisierung des Strategie-Alignment-Index

	Indicators	Source(s)
Vertical Alignment (VA)	VA1) PSM is included in the firm's strategic planning process (and attends strategy meetings).	CHEN/ PAULRAJ/ LADO (2004); CHEN/ PAULRAJ (2004); PAULRAJ/ CHEN (2005a, b, 2007); COUSINS ET AL. (2006); PAULRAJ ET AL. (2006); GONZÁLEZ-BENITO (2007); BERNARDES/ ZSIDISIN (2008); BERNARDES (2010); PAULRAJ (2011); PAULRAJ/ CHEN/ LADO (2012)
	VA2) PSM has a formally written long-range plan (e.g., a 5-10 year plan).	CARR/ SMELTZER (1997, 1999a, b, 2000); CARR/ PEARSON (1999); CHEN/ PAULRAJ/ LADO (2004); PAULRAJ/ CHEN (2005a, b, 2007); PAULRAJ ET AL. (2006); COUSINS ET AL. (2006); GONZÁLEZ-BENITO (2007); LAWSON ET AL. (2009); PRESSEY ET AL. (2009); SÁNCHEZ-RODRÍGUEZ (2009); PAULRAJ (2011); PAULRAJ/ CHEN/ LADO (2012); MIKALEF ET AL. (2014)
	VA3) PSM's long-range plan is reviewed and adjusted to match changes in the company's strategic plans on a regular basis.	CARR/ PEARSON (1999, 2002); CARR/ SMELTZER (1999a, b, 2000); GONZÁLEZ-BENITO (2007); LAWSON ET AL. (2009); LEE/ YEUNG/ CHENG (2009); PRESSEY ET AL. (2009); NASSIRY/ GHORBAN/ NASIRI (2012); SU (2013)
	VA4) PSM has a good knowledge of the firm's strategic goals.	CHEN/ PAULRAJ/ LADO (2004); CHEN/ PAULRAJ (2004); PAULRAJ/ CHEN (2005a, b, 2007); PAULRAJ ET AL. (2006); GONZÁLEZ-BENITO (2007); BERNARDES/ ZSIDISIN (2008); BERNARDES (2010); PAULRAJ (2011); NASSIRY/ GHORBAN/ NASIRI (2012); PAULRAJ/ CHEN/ LADO (2012)
	VA5) Top management emphasizes the PSM's strategic role.	CARR/ SMELTZER (1997); CHEN/ PAULRAJ (2004); PAULRAJ ET AL. (2006); LEE/ YEUNG/ CHENG (2009); PAULRAJ (2011); CHIANG ET AL. (2012); SU/ GARGEYA (2012b); PAULRAJ/ CHEN/ LADO (2012); NASSIRY/ GHORBAN/ NASIRI (2012); SU (2013)
	VA6) PSM professionals' development focuses on elements of the competitive strategy.	CHEN/ PAULRAJ/ LADO (2004); PAULRAJ/ CHEN (2004); PAULRAJ/ CHEN (2005a, b, 2007); PAULRAJ ET AL. (2006); COUSINS ET AL. (2006); PAULRAJ (2011); PAULRAJ/ CHEN/ LADO (2012)

Horizontal Alignment (HA)	HA1) PSM shares sensitive information (financial, production, design, research, and/or competition).	CHEN/ PAULRAJ/ LADO (2004); ENG (2005); PAULRAJ/ CHEN (2005a, b, 2007); PAULRAJ ET AL. (2006); PAULRAJ/ LADO/ CHEN (2008); LADO/ PAULRAJ/ CHEN (2011); CHIANG ET AL. (2012); PRAJOGO/ OLHAGER (2012); PAULRAJ/ CHEN/ LADO (2012); WALKER/ BRAMMER (2012)
	HA2) PSM exchanges (partly sensitive) information in a frequent, informal and/or in a timely manner.	CHEN/ PAULRAJ/ LADO (2004); CHEN/ PAULRAJ (2004); ENG (2005); PAULRAJ/ CHEN (2005a, b, 2007); PAULRAJ ET AL. (2006); PAULRAJ/ LADO/ CHEN (2008); LADO/ PAULRAJ/ CHEN (2011); PRAJOGO/ OLHAGER (2012); PAULRAJ/ CHEN/ LADO (2012); NASSIRY/ GHORBAN/NASIRI (2012); WALKER/ BRAMMER (2012)
	HA3) PSM participates in process design and improvement.	DAS/ NARASIMHAN (2000); NARASIMHAN/ DAS (2001); COUSINS ET AL. (2006); DAS/ NARASIMHAN/ TALLURI (2006); PAULRAJ/ CHEN/ (2007); HANDFIELD ET AL. (2009); CASTALDI/ TEN KATE/ DEN BRABER (2011)
	HA4) PSM participates in new product design.	DAS/ NARASIMHAN (2000); NARASIMHAN/ DAS (2001); NARASIMHAN ET AL. (2001); ZSIDISIN/ ELLRAM (2001); COUSINS ET AL. (2006); DAS/ NARASIMHAN/ TALLURI (2006); BAIER ET AL. (2008); HANDFIELD ET AL. (2009); CASTALDI/ TEN KATE/ DEN BRABER (2011); FOERSTL ET AL. (2013)
	HA5) PSM is integrated with manufacturing.	NARASIMHAN ET AL. (2001); DAS/ NARASIMHAN TALLURI (2006); SU/ GARGEYA (2012b); FOERSTL ET AL. (2013)
	HA6) PSM is integrated in marketing and sales.	GOH/ LAU/ NEO (1999); NARASIMHAN ET AL. (2001); BAIER ET AL. (2008); HARTMANN/ KERKFELD/ HENKE (2012); SU/ GARGEYA (2012b); FOERSTL ET AL. (2013)
Supplier Alignment (SA)	SA1) PSM has key suppliers involved in the strategic planning process.	CARR/ SMELTZER (1999b); CARR /PEARSON (2002); CHEN/ PAULRAJ (2004); LADO/ PAULRAJ/ CHEN (2011); NASSIRY/ GHORBAN/ NASIRI (2012); PAULRAJ/ CHEN/ LADO (2012)
	SA2) PSM views suppliers as an extension of the firm.	KRAUSE/ ELLRAM (1997); KRAUSE (1999); CHEN/ PAULRAJ/ LADO (2004); CHEN/ PAULRAJ (2004); PAULRAJ/ CHEN (2005a, b, 2007); PAULRAJ ET AL. (2006); PAULRAJ/ LADO/ CHEN (2008); LADO/ PAULRAJ/ CHEN (2011); PAULRAJ/ CHEN/ LADO (2012); PRAJOGO/ OLHAGER (2012)
	SA3) PSM has very frequent face-to-face planning/ communication with key suppliers.	KRAUSE/ ELLRAM (1997); CARR/ PEARSON (1999); CARR/ SMELTZER (1999b); CHEN/ PAULRAJ (2004); HUMPHREYS/ LI/ CHAN (2004); KRAUSE/ HANDFIELD/ TYLER (2007); MODI/ MABERT (2007); PAGELL/ KRUMWIEDE/ SHEU (2007); HUMPHREYS ET AL. (2011); LADO/ PAULRAJ/ CHEN (2011); LI ET AL. (2012); NASSIRY/ GHORBAN/ NASIRI (2012); PRAJOGO/ OLHAGER (2012); WALKER/ BRAMMER (2012); RASHED/ AZEEM/ HALIM (2013); SU (2013)
	SA4) PSM works with key suppliers to improve their quality in the long run.	CHEN/ PAULRAJ/ LADO (2004); CHEN/ PAULRAJ (2004); PAULRAJ/ CHEN (2005a, b, 2007); PAULRAJ ET AL. (2006); PAULRAJ/ LADO/ CHEN (2008); LADO/ PAULRAJ/ CHEN (2011); PRAJOGO/ OLHAGER (2012)
	SA5) PSM has key suppliers involved in the design process and development stage of products.	FORKER/ RUCH/ HERSHAUER (1999); FORKER/ STANNACK (2000); CARR/ PEARSON (2002); CHEN/ PAULRAJ (2004); HUMPHREYS/ LI/ CHAN (2004); SÁNCHEZ-RODRÍGUEZ/ HEMSWORTH/ MARTÍNEZ-LORENTE (2005); COUSINS ET AL. (2006); PAULRAJ ET AL. (2006); WAGNER (2006); LI ET AL. (2007, 2012); PAULRAJ/ CHEN (2007); CARR ET AL. (2008); LAWSON ET AL. (2009); SÁNCHEZ-RODRÍGUEZ (2009); HUMPHREYS ET AL. (2011); LADO/ PAULRAJ/ CHEN (2011); PAULRAJ/ CHEN/ LADO (2012); MIKALEF ET AL. (2014)
	SA6) PSM has key supplier membership/ participation in the project teams.	CHEN/ PAULRAJ (2004); PAULRAJ ET AL. (2006); PAULRAJ/ CHEN (2007); LADO/ PAULRAJ/ CHEN (2011); PAULRAJ/ CHEN/ LADO (2012)

Anlage 7 Operationalisierung der Messgrößen der Buying Firm's Performance Outcomes

<i>Indicators</i>		<i>Source(s)</i>
Purchasing and Supply Performance (PSP)	PSP1.1 Cost of materials (e.g. meeting target costs, total cost of ownership)	SÁNCHEZ-RODRÍGUEZ ET AL. (2005); CAI ET AL.(2006); SÁNCHEZ-RODRÍGUEZ (2009); SHAO ET AL. (2012); FOERSTL ET AL. (2013); MIKALEF ET AL. (2014)
	PSP1.2 Inventory performance	SÁNCHEZ-RODRÍGUEZ ET AL. (2005); SÁNCHEZ-RODRÍGUEZ (2009); MACKELPRANG/ NAIR (2010); SHAO ET AL. (2012)
	PSP2 Quality of materials	SÁNCHEZ-RODRÍGUEZ ET AL. (2005); CAI ET AL. (2006); TIRIMANNE/ ARIYAWARDANA (2008); SÁNCHEZ-RODRÍGUEZ (2009); WAGNER/ KRAUSE (2009); FOERSTL ET AL. (2013); MIKALEF ET AL. (2014)
	PSP3 On-time delivery	BAGCHI ET AL. (2005); SÁNCHEZ-RODRÍGUEZ ET AL. (2005); CAI ET AL. (2006); TIRIMANNE/ ARIYAWARDANA (2008); SÁNCHEZ-RODRÍGUEZ (2009); FOERSTL ET AL. (2013); MIKALEF ET AL. (2014)
	PSP4 Flexibility	GENOVESE ET AL. (2013); NAKANO/ AKIKAWA (2014)
	PSP5 Contribution to innovation	SHAO ET AL. (2012); FOERSTL ET AL. (2013)
PSP6 Internal customer satisfaction	SÁNCHEZ-RODRÍGUEZ ET AL. (2005); SÁNCHEZ-RODRÍGUEZ (2009)	

Operational Business Performance (oBP)	oBP1	Cost of production	BOYER/ MC DERMOTT (1999); SHIN ET AL. (2000); PAGELL/ KRAUSE (2002); CHEN/ PAULRAJ (2004); PAULRAJ ET AL. (2006); PAULRAJ/ CHEN (2007); PAULRAJ/ LADO/ CHEN (2008); PRESSEY ET AL. (2009); PRAJOGO/ OLHAGER (2012)
	oBP2	Quality of (end-)products (conformance to specifications)	KRAUSE ET AL. (2001); PAGELL/ KRAUSE (2002); CHEN/ PAULRAJ (2004); COUSINS/ MENGUC (2006); PAULRAJ ET AL. (2006); PAULRAJ/ CHEN (2007); SWINK ET AL. (2007); PAULRAJ/ LADO/ CHEN (2008); PAULRAJ/ CHEN/ LADO (2012)
	oBP3.1	Delivery speed	JAYARAM ET AL. (1999); SHIN ET AL. (2000); DAS (2001); KRAUSE ET AL. (2001); STANK ET AL. (2001); PAGELL/ KRAUSE (2002); VICKERY ET AL. (2003); CHEN/ PAULRAJ (2004); DROGE/ JAYARAM/ VICKERY (2004); PAULRAJ/ CHEN (2005a, 2007); COUSINS ET AL. (2006); PAULRAJ ET AL. (2006); PAGELL/ KRUMWIEDE/ SHEU (2007); SWINK ET AL. (2007); PAULRAJ/ LADO/ CHEN (2008); PRAJOGO/ OLHAGER (2012); YANG ET AL. (2013)
	oBP3.2	Delivery reliability/ dependability	JAYARAM ET AL. (1999); SHIN ET AL. (2000); DAS (2001); KRAUSE ET AL. (2001); STANK ET AL. (2001); PAGELL/ KRAUSE (2002); ROSENZWEIG ET AL. (2003); TRENT/ MONCZKA (2003); VICKERY ET AL. (2003); CHEN/ PAULRAJ (2004); PAULRAJ/ CHEN (2005a, 2007); COUSINS ET AL. (2006); PAULRAJ ET AL. (2006); SWINK ET AL. (2007); PAULRAJ/ LADO/ CHEN (2008); BRAUNSCHEIDEL/ SURESH (2009); PAULRAJ/ CHEN/ LADO (2012)
	oBP4.1	Volume flexibility	SHIN ET AL. (2000); KRAUSE ET AL. (2001); PAGELL/ KRAUSE (2002); CHEN/ PAULRAJ (2004); PAULRAJ/ CHEN (2005a, 2007); PAULRAJ ET AL. (2006); SWINK ET AL. (2007); PAULRAJ/ LADO/ CHEN (2008); PAULRAJ/ CHEN/ LADO (2012); PRAJOGO/ OLHAGER (2012); YANG ET AL. (2013)
	oBP4.2	Process flexibility	VICKERY/ DROGE/ MARKLAND (1993); SHIN ET AL. (2000); ROSENZWEIG ET AL. (2003); SWINK/ NARASIMHAN/ KIM (2005); SWINK ET AL. (2007)
	oBP5.1	Contribution to product development (innovation)	
	oBP5.2	Introduction of innovative products and capabilities (innovation)	KRAUSE ET AL. (2001); NARASIMHAN/ DAS (2001); CARR/ PEARSON (2002); HARTMANN/ KERKFELD/ HENKE (2012)
	oBP5.3	Dedication to strategic, innovative tasks (innovation)	
	oBP6.1	Rapid confirmation of customer orders (customer responsiveness)	CHEN/ PAULRAJ/ LADO (2004); CHEN/ PAULRAJ (2004); PAULRAJ/ CHEN (2005a, 2007); PAULRAJ/ CHEN/ FLYNN (2006); PAULRAJ/ LADO/ CHEN (2008); LADO/ PAULRAJ/ CHEN (2011); PAULRAJ/ CHEN/ LADO (2012)
	oBP6.2	Rapid handling of customer complaints (customer responsiveness)	CHEN/ PAULRAJ/ LADO (2004); CHEN/ PAULRAJ (2004); PAULRAJ/ CHEN (2005a); PAULRAJ ET AL. (2006); PAULRAJ/ CHEN (2007); PAULRAJ/ LADO/ CHEN (2008); LADO/ PAULRAJ/ CHEN (2011); PAULRAJ/ CHEN/ LADO (2012)
	oBP6.3	External customer satisfaction	KATHURIA (2000); NARASIMHAN ET AL. (2001); STANK ET AL. (2001); CHEN/ PAULRAJ (2004); ENG (2005); PAULRAJ/ CHEN (2005a); PAULRAJ ET AL. (2006); GONZÁLEZ-BENITO (2007, 2010); SWINK ET AL. (2007); LADO/ PAULRAJ/ CHEN (2011)
	Economic (Business) Performance (eBP)	eBP1	(Growth in) Return on investment	CARR/ PEARSON (1999, 2002); CARR/ SMELTZER (1999a, b, 2000); NARASIMHAN/ KIM (2002); VICKERY ET AL. (2003); CHEN/ PAULRAJ/ LADO (2004); CHEN/ PAULRAJ (2004); DROGE ET AL. (2004); COUSINS ET AL. (2006); PAULRAJ ET AL. (2006); FLYNN ET AL. (2010); GONZÁLEZ-BENITO (2007, 2010); CAO/ ZHANG (2011); LADO/ PAULRAJ/ CHEN (2011); PAULRAJ/ CHEN/ LADO (2012); SHAO ET AL. (2012); REBOLLEDO/ JOBIN (2013)
eBP2		(Growth in) Profits as a percent of sales	CARR/ PEARSON (1999, 2002); CARR/ SMELTZER (1999a, b); CHEN/ PAULRAJ/ LADO (2004); CHEN/ PAULRAJ (2004); PAULRAJ ET AL. (2006); GONZÁLEZ-BENITO (2007, 2010); LADO/ PAULRAJ/ CHEN (2011)
eBP3		(Growth in) EBITDA	CARR/ PEARSON (2002); BAIER ET AL. (2008); SARANGA/ MOSER (2010); HARTMANN/ KERKFELD/ HENKE (2012); FOERSTL ET AL. (2013)
eBP4		(Growth in) Return on assets	DAVID ET AL. (2002); NARASIMHAN/ KIM (2002); TAN/ LYMAR/ WISNER (2002); SÁNCHEZ-RODRÍGUEZ/ MARTÍNEZ-LORENTE/ CLAVEL (2003); VICKERY ET AL. (2003); WISNER (2003); DROGE ET AL. (2004); KANNAN/ TAN (2005); MOLLENKOPF / DAPIRAN (2005a); COUSINS ET AL. (2006); BAIER ET AL. (2008); HARTMANN/ KERKFELD/ HENKE (2012); SU/ GARGEYA (2012b); FOERSTL ET AL. (2013)
eBP5		(Growth in) Market share	JAYARAM ET AL. (1999); MCDERMOTT/ STOCK (1999); TAN ET AL. (1999); CARR/ SMELTZER (2000); TRACEY/ TAN (2001); CARR/ PEARSON (2002); NARASIMHAN/ KIM (2002); TAN/ LYMAR/ WISNER (2002); SÁNCHEZ-RODRÍGUEZ/ MARTÍNEZ-LORENTE/ CLAVEL (2003); WISNER (2003); DROGE ET AL. (2004); COUSINS (2005); KANNAN/ TAN (2005); SWINK/ NARASIMHAN/ KIM (2005); SWINK ET AL. (2007); GONZÁLEZ-BENITO (2007, 2010); FLYNN ET AL. (2010); HUO (2012); SHAO ET AL. (2012); SU/ GARGEYA (2012b); REBOLLEDO/ JOBIN (2013)
eBP6		(Growth in) Sales	SLATER/ NARVER (1994); MCDERMOTT/ STOCK (1999); TAN ET AL. (1999); CARR/ SMELTZER (2000); TRACEY/ TAN (2001); NARASIMHAN/ KIM (2002); ROSENZWEIG ET AL. (2003); SWINK/ NARASIMHAN/ KIM (2005); GONZÁLEZ-BENITO (2007, 2010); BAIER ET AL. (2008); FLYNN ET AL. (2010); HUO (2012); SHAO ET AL. (2012); FOERSTL ET AL. (2013); REBOLLEDO/ JOBIN (2013); LEUSCHNER ET AL. (2014)

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