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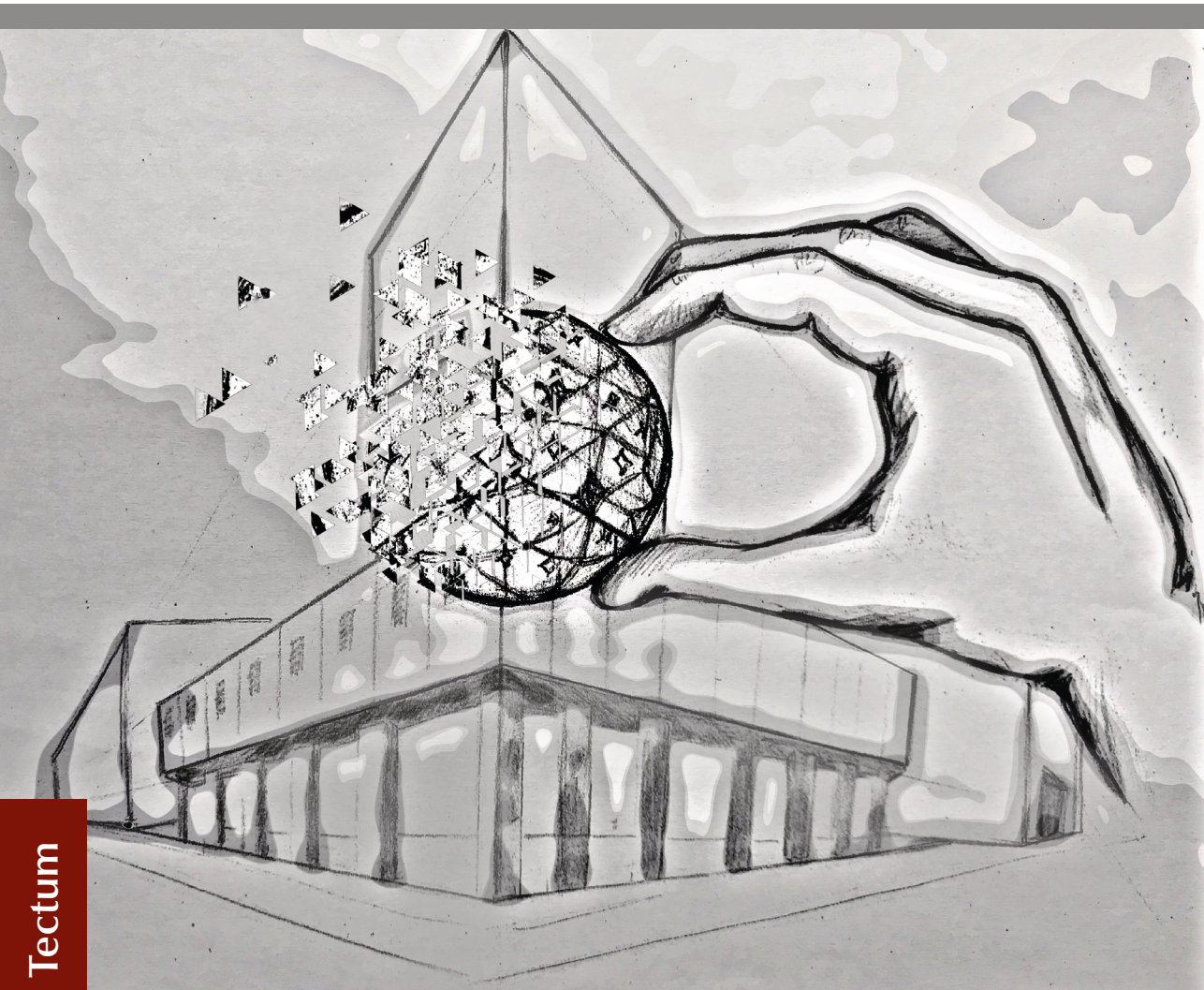
Christian Schlicht

Methods of Measuring the Added Value of Facility Management for Generating Competitive Advantages

Illustrated by the Example of the German Shopping Center Market



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Preface by Alexander Otto

We are facing challenging times these days. Investors are now confronted with the VUCA question in detail and increasingly realize that climate change also represents a massive investment risk. In this context, Corona accelerates these trends. Investment criteria are changing rapidly, and we are currently undergoing a fundamental transformation of the investment sector. In this way, we will experience a substantial reallocation of capital and assets. Every government, every company and every investor has to proactively face climate change and its impact. "Sustainable Finance" is imperative – an improved disclosure of decision-relevant information for Shareholders and Stakeholders is therefore urgently required. Especially in a real estate context, data evaluation therefore forms the essential basis for investment decisions and reporting activities.

Due to the progressing saturation of the shopping center market, ECE no longer develops new shopping center sites – yet, such developments represented the corporate core business some 15 years ago. Today we focus upon managing a diversified portfolio of existing assets and only acquire center locations that we consider viable in the future. This changed corporate strategy induces a re-focusing upon real estate operations, clearly the longest phase within the real estate life cycle.

Christian Schlicht's dissertation thesis impressively demonstrates that targeted added value measurement in Facility Management (FM) can effectively influence corporate success. The developed AVIC-tool represents the basis for evidence & performance-based management on department level and is designed to be integrated easily into any given KPI environment. With his long-term experience in the international real estate sector, Christian successfully managed to bring the actual real estate users and customers into the operational focus. His thesis incorporates a FM-adopted Customer Journey approach and thus considers essential and valuable insights from different stakeholder perspectives. I really appreciate the important results of Christian's latest empirical study in which he develops new innovative methods to measure real impact, actual USPs.

FM takes a decisive role when it comes to accompanying stakeholders along their Customer Journey with this new data driven approach. His work is an important contribution to our journey of turning shopping centers into new marketplaces.

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I am impressed that Christian has committed himself that deeply to the topic of customer satisfaction next to his tasks and responsibilities as ECE Director.

Enjoy reading and learn how to focus: it's all about your stakeholders.

Alexander Otto
CEO
ECE Projektmanagement G.m.b.H. & Co. KG

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Preface by Jöri Engel

Data management, transparency and communication represent the core pillars of Corporate Real Estate Management. It might be an old, widely spread wisdom that data form the basis for understanding the past and creating the future. Yet, up-to-now, this has been much harder than initially assumed. As a matured management discipline, Corporate Real Estate Management is no longer exclusively about creating standard KPIs but about measuring added-value contributions in favor of the actual core business. This attempt becomes even more significant, when Real Estate and Facility management from different sectors can be compared – with a branch-comprehensive and uniform method. We are no longer satisfied with "only" reaching our objectives and outer-/ or underperforming our parameters – we want to beat the benchmark, the bests on the market!

Dream of the future? Impossible? Non-comparable basis? No longer until recently!

Christian Schlicht's thesis demonstrates impressively how this magic can actually happen. Based on my state of knowledge, we (CREM organizations) are therewith enabled for the first time to identify levers and their impact in a systematic and practice-oriented manner – in exactly a manner which should be focused in CREM and FM in order to support respective core businesses ideally.

With Christian Schlicht's 15 years of active experience as real estate expert, it is logical to assume that the applied methodology can easily be combined with the existing system of indicators and can be used for measuring purposes among any sector or branch.

By that also branch-comprehensive comparisons are possible, offering significant advantages for the CREM world and many colleagues. Everyone with CREM responsibility therewith receives a practical tool in order to consult and thrill our Stakeholders to an even larger extent!

I have great respect for Mr. Schlicht and his creation and wish for myself and the entire CREM community that his thesis will find large acceptance and application. When professional CREM is based upon data management, transparency and com-

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munication, we now have a tool at our disposal which will make the experience of these terms even more vivid and tangible.

Jöri Engel
President CoreNet global Central Europe
Head Corporate Real Estate Management Swisscom

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Preface by Dirk Otto

Real Estate (REM) and Facility Management (FM) has developed rapidly over the last few years and today already comprises many areas that are particularly responsible for the success of a company.

As a professional association, Real FM e. V. has a strong interest in promoting the national and international exchange of knowledge and experience as well as in research and training and further education in the field of real estate and FM. An indicator for the continuing professionalization in REM & FM is the need to further define, differentiate and specify processes as well as functions, tasks and activities in FM. In order to further advance and support this development, the description of all functions and services of the property and service-related management has been transferred into a function and service model.

The present dissertation by Christian Schlicht now shows impressively how the bridge between research and business practice can be built. As a well-known Corporate Real Estate Management (CREM) and FM expert, he has many years of experience in the implementation of various projects in Germany and abroad. He uses the proximity to universities and colleges to further develop his ideas methodically and didactically as well as to conduct research.

In the course of his extra-occupational doctorate, he succeeded in developing the first model for measuring the added value of CREM / FM in relation to corporate success. His scientific findings show for the first time the concrete and measurable value contribution of CREM & FM and are perfectly transferable to the entire CREM & FM world. Due to the developments of digital transformation in CREM and FM, more and more data will be available to the real estate operator. These can now be made accessible for modern REM. The same applies to the added value of REM & FM for the achievement of climate protection goals, which can now also be concretely measured.

The AVIC measurement model enables an evidence-based CREM and FM that also plays a decisive role in corona-related issues such as Workplace / New Work, UX or Customer Experience/Satisfaction with regard to the return to the office or other workplaces with the help of measurability with regard to hygiene & prevention concepts, operator responsibility, etc. as a kind of confidence-building measure.

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In the sense of the broad professionalization work we wish you a high gain of knowledge and benefit from reading this book, as well as much success in its implementation in practice!

Dirk Otto
President RealFM e. V.
Managing Director in the Gegenbauer Group of Companies

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Preface by Jörg Hossenfelder

Without facility management, no operation in hospital. A decade ago, this slogan was intended to point out the special importance of the sector for the real estate industry. So far, FM has not everywhere achieved the status it deserves. Too often, facility management is primarily seen as a cost factor.

What has been missing until now has been a clear measurement of the value contribution to corporate success. However, in the course of the digital transformation, CREM departments now have access to data that not only helps to optimise the business, but also makes the added value of the activity measurable. This information must be used. Christian Schlicht's work clearly demonstrates this.

From the point of view of a market researcher, Schlicht's work is particularly impressive in the example of a significant increase in customer satisfaction within a shopping centre. Concrete, data-supported measures and accompanying communication made it possible to verify not only which actions contribute to success, but also to what extent this increases customer frequency and turnover.

Schlicht's dissertation is science for practice and practice for science. His many years of expertise in the CREM environment is reflected not least in the interpretative part of his analysis. And he clearly shows that he is not only concerned about his own business, but above all about the property of his employers – whether at Würth or currently at ECE.

His work has not only earned him an academic title. His dissertation demonstrates the value contribution of FM and promotes the image and reputation of an entire industry.

Jörg Hossenfelder
Managing Director
Lünendonk & Hossenfelder GmbH

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Preface by Tanja Zirnstein

As a real estate expert, Christian Schlicht is no stranger to thinking outside the box and constantly looking at innovative systems. Creating concrete added value in the FM sector by means of hygiene and safety for center customers was already one of his goals prior to the current Corona pandemic. In doing so, he focused on customer centricity with the help of the Customer Journey – starting with owners, tenants, employees and end customers on their journey through the center with touch points.

Until now, the reluctance of investors to invest has made it difficult to establish new approaches of this kind on the market. With his AVIC (Added Value Identification Concept) model, Christian Schlicht has created the first measuring instrument for added value of facility management measures in connection with corporate goals. He has thus provided real estate owners and operators with a tool that will be indispensable in the future, since investment decisions can now be made on an evidence-based basis and the performance contributions of the departments involved can be realistically measured. The combination of factual and subjective added value creates corresponding competitive advantages and USPs.

Even more so, the AVIC model is not only easy to integrate into an existing KPI structure of companies, but also works across industries, if one thinks in the current situation of occupational safety, health management and in this regard of customer satisfaction e.g. in public transport, in the health sector or in industry, where UVIS is also in use.

Through the very cooperative partnership we have been able to contribute to making ECE shopping center customers feel safer and more secure. This is one of the cornerstones of our company. We are therefore very proud that Christian Schlicht has made us a part of the Customer Journey by integrating our hygiene systems ESCALITE and TiTANO into his module-based FM concept for hygiene and preventive and at the same time confidence-building measures for the safety of customers and employees.

Tanja Zirnstein
Managing Director
UVIS UV-Innovative Solutions GmbH

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Acknowledgment

While writing my dissertation, I received a lot of support from both the academicians and my family.

I would like to thank my family for their full trust, support, patience, and understanding during the past years. I was allowed to fully concentrate on my tasks only as a result of their encouragement. I would like to thank my girlfriend for her indulgence and assistance during the intense period of my doctoral studies.

Special thanks go to my doctoral advisor, Pavol Molnár, who contributed significantly to the success of this work through his experience, helpfulness, and suggestions. At this point, I would also like to thank Professor Dr. Torben Bernhold and Dr. Vanessa Lellek for their critical, intense, and constructive discussions. Through their shared interest in this topic, they were able to point out new perspectives to me.

The aforementioned aspects facilitated the realization of my dissertation and created a strong, intrinsic, and lasting personal motivation.

Special thanks go to my friend and study companion, Christoph Müller. This achievement would not have been possible without our intense exchanges on both professional and human levels. Last but not least, I would like to thank Kira Pusch for her support, layout, and critical reflection of this work, as well as all of the support not explicitly mentioned.

I dedicate this thesis to my family.
Many thanks!

Hamburg, June 2020 Christian Schlicht

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Abstract

[English]

Increasingly important benefits of Corporate Real Estate Management (CREM) and Facility Management (FM) are widely described in theoretical literature. Although FM practically is often regarded as a cost collector only, this management discipline can significantly contribute to core businesses and competitive entrepreneurial positions by secondary process control. Yet this FM contribution is currently not perceived by many corporate decision makers. Therefore, a qualitative and quantitative benefit evidence is imperative which subsequently requires the definition of a clear measurement-approach.

This dissertation describes the measurable and transferable added value (AV) of CREM/FM. Focus is set upon the impact measurement of CREM/FM on the core business. An AV measurement tool is developed in accordance with the Tableau de bord and is applied for a horizontal and vertical corporate objective-relationship-visualization.

The methodical research approach is primarily of qualitative nature. The developed instrument is based on an embedded case study conducted at ECE Projektmanagement G.m.b.H. & Co. KG (ECE). Important case study impulses have been identified during a literature-based comparison of different AV measurement instruments from various industries. An additional quantitative exploratory study on TPB basis has been executed describing the connection between general AV measurement attitudes and an actual implementation tendency in reality. By means of a second quantitative study, the developed AV model has been tested and finally provided an important impetus for AV measurement implementation and its integrability for future research. The developed method represents an initial approach to directly combine core business objectives with CREM/FM objectives, finally enabling a concrete operationalization in business practice.

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Table of Contents

https://www.nomos-shop.de/isbn/978-3-8288-4595-4

https://www.nomos-shop.de/isbn/978-3-8288-4595-4

https://www.nomos-shop.de/isbn/978-3-8288-4595-4

https://www.nomos-shop.de/isbn/978-3-8288-4595-4

List of Illustrations

https://www.nomos-shop.de/isbn/978-3-8288-4595-4

https://www.nomos-shop.de/isbn/978-3-8288-4595-4

https://www.nomos-shop.de/isbn/978-3-8288-4595-4

https://www.nomos-shop.de/isbn/978-3-8288-4595-4

List of Tables

https://www.nomos-shop.de/isbn/978-3-8288-4595-4

https://www.nomos-shop.de/isbn/978-3-8288-4595-4

List of Abbreviations and Symbols

–	minus
+	plus
x	times
/	divided by
<	less than
>	greater than
=	equal
α	alpha
&	and
€	Euro
$	Dollar
%	Percent
m^2	Square meter
24/7	Twenty-four seven, 24 hours a day/7 days a week
4P	Planet, People, Performance, Profit
AI	Artificial Intelligence
AKNW	Architektenkammer Nordrhein-Westfalen
AM	Asset Management
approx.	approximately
Assoc.	Associate
AV	Added Value
AVIC	Added Value Identification Concept
AYS	At your Service
B	Benefit
B2B	Business to Business
B2C	Business to Customer
BAMB	Buildings as material banks
BC	Before Christus

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BIM	Building Information Modeling
bn	Billion
BSC	Balanced Scorecard
BSc	Bachelor of Science
C2C	Cradle to cradle
ca.	circa
C&A	Clemens und August
CAPM	Capital Asset Pricing Model
CA	Cronbach's Alpha
CAV	Cronbach's Alpha value
CC	Content Code
CEO	Chief Executive Officer
cf.	compare
CFO	Chief Financial Officer
CFROI	Cash-flow return on investment
CIB	International Council for Building
CIO	Chief Investment Officer
CIP	Continual improvement process
CIPD	Chartered Institute of Personnel and Development
cit.	citation
CityU	City University of Seattle
CM	Center Management
CNG	CoreNet Global – The Global Association for Corporate Real Estate
Co.	Company
COVID-19	Coronavirus disease 2019
CO2	Carbon dioxide
CRE	Corporate Real Estate
CREM	Corporate Real Estate Management
CRM	Customer Relationship Management

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CVM	Contingent Valuation Method
CX	Customer Experience
DAD	Dhanarak Asset Development
DCF	Discounted Cash Flow
DEA	Data envelopment analysis
DGNB	Deutsche Gesellschaft für Nachhaltiges Bauen – DGNB e.V. German Sustainable Building Council
DHBW	Duale Hochschule Baden Württemberg
DIN	Deutsches Institute für Normung
DLT	Distributed Ledger Technology
Dreso	Drees and Sommer
E	Expert
EC	Expert code
EC Aid	European Commission Aid
ECE	ECE Projektmanagement G.m.b.H. & Co. KG
e-commerce	Electronic commerce
EE	Equity Equivalents
EN	European Norm
e. g.	exempli gratia, for example
ESG	Environmental, Social, and Governance
et al.	et alii, et aliae, et alia; and others
etc.	et cetera
EU	European Union
EuroFM Research Initiative	European Facility Management Research Initiative
EVA	Economic Value Added

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e.V.	eingetragener Verein, incorporated association
EX	Exploratory question
ff.	et seq. = et sequentes, and following pages
FH	Fachhochschule
FINDEX	Word creation of find and index, Digital university library of FH Münster
FM	Facility Management
FMC	Facility Management Consulting
GB	Great Britain
GER	Germany
GEFMA	German Facility Management Association
GFA	Gross floor area
Gen Z	Generation Z = People that are younger than 20 years
GM	Guest Model
GMA	Gesellschaft für Markt- & Absatzforschung
G.m.b.H. & Co. KG	Gesellschaft mit beschränkter Haftung & Compagnie Kommanditgesellschaft
H	Hypothesis
HDE	Handelsverband Deutschland – HDE e. V.
HHL	Handelshochschule Leipzig
H&M	Hennes und Mauritz
HR	Human Resources
HRM	Human Resource Management
IBM	International Business Machines Corporation
IC	Investment Committee
ICSC	International Council of Shopping Centers
ID 21	Data set
i.e.,	id est, that is
IFH	Institut für Handelsforschung
IFMA	International Facility Management Association
Inc.	Incorporated

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incl.	including
IoT	Internet of Things
IPM	Infrastructural Property Management
ISBN	International Standard Book Number
ISO	International Standardization Organization
ISSN	International Standard Serial Number
IT	Information Technology
K	Key question
KPI	Key performance indicators
LS	Leasing Management
MBA	Master of Business Administration
m-commerce	Mobile commerce
min	Minutes
MIS	Management Information System
MEC	Metro-ECE Centermanagement (joint venture between ECE and Metro Group)
MS	Microsoft
MVA	Market Value Added
n	Number of cases
N1	Zero measurement
N2	Follow-up measurement
NAV	Net Asset Value
nm	Nanometer
No.	Number
NOPAT	Net Operating Profit After Taxes
NSGMM	The New St. Gallen Management Model
NY	New York
ORMM model	Outcome-Relationships-Measures-Manage model
OTI	Office, Traffic, Industries
p	Significance

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p.	Page
padCAPI	Computer Assisted Personal Interview using Apple iPads
PCH	Phoenix-Center Hamburg
PDCA	Plan-Do-Check-Act
Ph.D.	Doctor of Philosophy
POS	Point of sale
Pros & Cons	Advantages and disadvantages
Q1 2020	First quarter in 2020
Rewe	Revisionsverband der Westkauf-Genossenschaften
ROI	Return on invest
Prof.	Professor
Sa	Sacrifice
SC	Shopping Center
SPSS	Statistical Package for the Social Sciences
sqm	Square meter
SRH	Stiftung Rehabilitation Heidelberg
St.	Sankt
Tdb	Tableau de bord
TIB	German National Library of Science and Technology Hannover
TPB	Theory of planned behavior
TR	Track record
ULCA	University of California
URL	Uniform Resource Locator
USA	United States of America
USP	Unique selling point or unique selling proposition
UVC	Ultraviolet radiation in the wavelength range C from 280–100 nm
UVIS	UVIS UV-Innovative Solutions GmbH
VAP	Value Added Printing
VBM	Value-Based Management

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VDMA	Verband Deutscher Maschinen- und Anlagenbau e. V.
VDE	Verband der Elektrotechnik Elektronik Informationstechnik e. V.
VM	Value Map
vs.	versus
VSM	Vysoká škola manažmentu
VUCA	Volatility, uncertainty, complexity, and ambiguity
WACC	Weighted Average Cost of Capital
web or www	World Wide Web
WS	Winter semester
XING	Social network specializing in maintaining and establishing professional business contacts.

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