## CITATION ANALYSIS IN RESEARCH EVALUATION

HENK F. MOED



## **Contents**

Pre	face		ix		
Exe	Executive Summary				
Pa	rt 1	General Introduction and Main Conclusions	9		
1	Gene	ral Introduction	11		
2	Basic	Notions and General Conclusions	25		
3	Syno	psis	35		
Pai	rt 2	Empirical and Theoretical Chapters	69		
Par	t 2.1	Assessing Basic Science Research Departments and Scientific Journals	69		
4	Citati	on Analysis of Basic Science Research Departments	71		
5	Citati	on Analysis of Scientific Journals	91		

Par	t 2.2	The ISI Citation Indexes	107		
6	Basic	Principles, Citation Links and Terminology	109		
7	ISI Coverage by Discipline				
8	Implications for the Use of the ISI Citation Indexes in Research Evaluation		137		
Par	t 2.3	Assessing Social Sciences and Humanities	145		
9	Diffe	rences between Science, Social Sciences and Humanities	147		
10	Expai	nded Citation Analysis: A Case Study in Economics	153		
11	A Ca	se Study of Research Performance in Law	159		
Pai	rt 2.4	Accuracy Aspects	167		
12	Intro	luctory Notes on Accuracy Issues	169		
13	Accu	racy of Citation Counts	173		
14		ems with the Names of Authors and Institutions, and with Delimitation of Subfields	181		
Pai	Part 2.5 Theoretical Aspects				
15	What	Do References and Citations Measure?	193		
16	Towa	ards a Theory of Citation: Some Building Blocks	209		
17	Implications for the Use of Citation Analysis in Research Evaluation		221		
Part 2.6 Citation Analysis and Peer Review			227		
18	Peer	Review and the Use and Validity of Citation Analysis	229		

Contents			
19	Analysis of Peer Assessments of Research Departments	239	
20	Analysis of a National Research Council	247	
Par	t 2.7 Macro Studies	259	
21	Did Global Scientific Publication Productivity Increase during the 1980s and 1990s?	261	
22	Measuring Trends in National Publication Output	271	
23	Does International Scientific Collaboration Pay?	285	
24	Do US Scientists Overcite Papers from their Own Country?	291	
Part 2.8 New Developments			
25	Development of New Indicators	303	
26	Electronic Publishing, New Databases and Search Engines	313	
27	Further Research	319	
References			
Index of Keywords, Cited Works and Cited Authors			