Valuation of Plant & Machinery

For

Insolvency & Bankruptcy, Secured Lending, M&A, Restructuring and Insurance

Kirit P. Budhbhatti



Preface of the book

It gives me immense pleasure to present the latest edition of Valuation of Plant & Machinery, building upon the knowledge and experience gained through its earlier editions. The earlier editions received valuable appreciation and encouragement from readers, students and professionals, which inspired me to further update and improve the book. This edition reflects the continuous evolution of the valuation profession and incorporates important developments in contemporary valuation practices. It includes updated content on emerging technologies such as Artificial Intelligence, Big Data and Blockchain, along with developments in insurance, impairment, secured lending, insolvency and bankruptcy, due diligence, M&A and restructuring, case studies, practical insights and global valuation practices have also been included to make the book more relevant and useful. Every effort has been made to present the subject in a simple, practical and structured manner. I hope this edition will serve as a valuable reference for students, valuers in private & public Sectors, financial institutions, industry professionals and will continue to receive the same warmth and recognition as the earlier editions.



The Book at a Glance

This book provides a comprehensive and practical understanding of the valuation of plant, machinery, and equipment, bringing together valuation theory, engineering, economics, law, accounting, and finance. It explains the fundamental concepts of value, asset identification, useful life, depreciation, obsolescence, and the various factors that influence asset value. The book provides detailed guidance on the three internationally recognized valuation approaches—the Cost Approach, Market Approach, and Income Approach—with particular emphasis on Depreciated Replacement Cost (DRC) and the relationship between asset value and economic utility.

It also examines the changing role of the plant and machinery valuer in the modern technological environment, including the impact of Artificial Intelligence, Automated Valuation Models, Big Data, and Blockchain. Practical guidance is provided on asset verification, inventory preparation, market research, valuation procedures, analysis, reconciliation, and report writing. The book further covers leasing, environmental considerations, contamination, pollution liabilities, and other factors that may affect value.

Specialized applications of valuation for mergers and acquisitions, disinvestment, restructuring, secured lending, insolvency, insurance, impairment testing, and due diligence are discussed in detail. It also explains different forms of value, including market value, liquidation value, orderly liquidation value, forced sale value, and realizable value, along with relevant international practices.

Supported by practical case studies, real-life valuation assignments, professional guidance, and important judicial precedents from India and other jurisdictions, this book bridges the gap between valuation theory and its practical application. It serves as a valuable reference for valuers, bankers, accountants, insolvency professionals, investors, corporate executives, regulators, academicians, and students seeking an advanced understanding of plant and machinery valuation.





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Global Views on the book

First Edition

N.A. Palkhiwala - Eminent Jurist in his letter dated 16-04-1999 writes to the Author:

"I have gone through the book and found it of absorbing interest."

CJC Derry - Former Chairman - Plant and Machinery Valuation Committee - The Royal Institution of Chartered Surveyors London writes in his foreward to first edition of the book as follows

So far I have made no mention of India which, whilst perhaps being a late starter, is now powering ahead at a rate which is impressive to say the very least with its own representative bodies and professional standards. Most impressive of all, however, the Centre for Valuation Studies at BVM Engineering College, Vallabh Vidyanagar – 388 120, Gujarat offers what I believe is the only degree course in the entire World where the student can study and graduate in machinery and equipment appraisal – an example to be envied by other countries where the discipline has been established for much longer.

Of course, professional representation, practice standards, seminars, conferences, and university courses do not simply create themselves – someone has to invest a great deal of time and effort pursuing these goals with considerable dedication in order to make ideals into reality and the author of this book, Kirit Budhbhatti, has, without doubt been at the forefront in introducing a new and very welcome standard of professionalism to plant and machinery valuation in India.

I am informed by some of Mr. Budhbhatti's contemporaries (in other words, his competitors!) that his input in achieving this objective has been awesome – and clearly the same level of effort and dedication has been devoted to produce this reference book which draws on guidance notes, professional standards, case law, published papers and other sources and distils them into a single reference work for the Indian professional but which will be of considerably more than passing interest to practitioners based in other countries who, whilst bound by their own practice statements and guidance notes, will be able to derive a great deal of benefit from this work written in the international language of plant and machinery valuer.

Les Miles - *Former President - ASA and Chairman MTS Committee writes in his introduction to the first edition of the book as follows:*

"I am personally aware of Mr. Budhbhatti's research throughout the world in order to gather information from the best sources to provide the most accurate valuation manual possible on this topic. He has travelled to the United Kingdom and the United States and interviewed the most prominent valuation associations as well as well-known valuers. In the United States and Canada, he attended many conventions of appraisal associations. He travelled to New York, Washington D.C., Denver-Colorado and Dallas-Texas, in order to see first-hand the procedures for applying the concepts, interview principals of the more respected appraisal firms and find documented resources. Although disappointed on the scarcity of material on the subject, his book assists in closing the gap on that problem."

Global Views on the book

Max Crofts - *President RICS-Partner- King Sturge & Co., London - International Plant & Machinery Valuers in his letter dated 27-10-1999 writes to the Author:*

"It is a most impressive publication - the valuation profession owes a great debt to your efforts."

Dr. Roshan H. Namavati - *Distinguished Valuer and author of valuation books in his letter dated 24-08-1999 writes to the Author:*

"In reality there is no Indian book on this subject of valuation related to evaluation of plant and machinery excepting your book only. This book as such will be Mariner's compass for the present valuers as well as valuers of future."

Mukesh M. Shah, *BE, MIE, FIV, M. Cons. (India) - Chartered Engineer and Valuer, Ahmedabad writes in his letter dated 30th April 1999 as follows:*

"Above book is very resourceful for practicing Valuers. The printing, quality of paper and overall presentation is excellent. It will not be exaggerating to state that this book stands no.1 in Indian market as on date in its field."

Third Edition

Andrew *Liew of PME Board Property Institute of New Zealand writes in his email dtd. 20th Nov. 2018 that:*

"I am a big fan of your book and I hope you are well.

I represent the Property Institute of New Zealand (PINZ) Plant and Machinery (P&M) valuers board and currently serve as the education council. I would like to inform you that the PINZ P&M board has included your book "Valuation of plant and machinery: theory and practice" as study material for PINZ P&M membership exams."

Shri. K. K. Venugopal, *Attorney General for India writes in his letter dtd. January 18, 2019 that:*

"Government policy today is to maximise the value of assets of a company. The Insolvency and Bankruptcy Code is founded on this policy objective. Integral to this is to have a robust body of registered valuers/valuation professionals who are governed by a specialized regulatory authority that lays down rules and guidelines-at present, it is the IBBI that conducts examinations for valuers and registers them under the Companies (Registered Valuers and Valuation Rules, 2017). The suggestions made in the book, ie., to lay down criteria / standards for academic courses and to have a Central Valuation Board for carrying out valuation, are timely and persuasive.

I find that a lot of thought, and effort has gone into this book. You seem to have tapped your decades of experience in this field to address the many contemporary issues in this book. I am told that the first edition of the book was first attempt to introduce the subject in our country. I am happy that you have continued to update the book to keep it current."

Global Views on the book

Shri N.K. Singh, Chairman, *15th Finance Commission, Govt. of India, former Revenue Secretary, Government of India, and former Principal Secretary to Prime Minister of India writes in his email dated 30th August 2017, as follows:*

"This no doubt would be a very valuable addition to the somewhat scant literature available on this complex issue. It would be of enormous value to not only to investors and the tax officials but highlight the methodology for appropriate valuations in this area, the methodology and the advantage and pitfalls have been covered extensively in the section of cost, price, and value.

CJC Derry writes in his email dtd. 10 Oct 2017 as follows:

It really is a highly creditable work that must have taken many months of effort to put together, and which covers such a wide range of valuation related topics.

Clearly, if your students read, learn, and inwardly digest (as the saying goes) from cover to cover, they should be well set up to face their technical examinations and everything that a career in PME appraisal will throw up.

I have looked at the specific parts of chapter VII that you mentioned, and I think that you and I are very much on the same wavelength. You are quite right in that simply taking the sum of individual assets seen in isolation is not the whole story and due attention has to be paid, inter alia, to the compatibility of each to the entire facility, the balance of equipment, utilisation levels and profit potential (which, of course, is not necessarily the same as actual achieved profits)."

I do like the Akbar and Birbal story about dolls. It would be interesting to hear the reaction of a judge in the High Court in London if barrister were to incorporate it into his submission.

Rod Hyman - Former Chairman Plant & Machinery Committee RICS and Former Member - Australian Valuation Standards Board - *writes in his email dated 20th October, 2017 as follows:*

"I think your book is excellent for its target market and fills a hole for students and practitioners".

Jerry Grad, Chief Executive Officer, International Property Tax Institute - *writes in his email dated 10th November, 2017 as follows:*

"Congratulations on a job well done. It is great achievement.

Global Views on the book

Fourth Edition

Chris Derry former Chairman Plant and Machinery Valuation Committee, RICS London

He writes in his email dated 14 July 2023 that - having seen your work develop over thirty years to the latest mighty tome is nothing short of remarkable. I am in awe at the amount of time and effort that must have gone into both the creative writing and the collection and collation of works and comments from others. The final outcome is extremely well presented, very well laid out and eminently readable.

Of course, the valuation terminology which you use is far from that which I used to adopt, but that was ever changing throughout the time I was practicing anyway and another twenty plus years has elapsed since then. Also, I was very much tied into RICS terminology, whereas you are looking at both Indian and International sources. As you well know, I have long advocated that the terminology doesn't matter all that much in any event. Far more important is adopting the correct valuation principles and making clear exactly what an appraisal is intended to represent. And your book is very explicit in these overriding factors.

I find myself unable to disagree with any of the principles and observations relating to PME appraisal in the areas with which I am familiar, although you cover many topics where I have no knowledge at all.

On a non-technical aspect, I was particularly amused by the comment by a US judge that you managed to unearth, saying that 'valuation is neither an art nor a science - I view it as a mystery'. How I wish I had heard that thirty years ago!

Although I no longer practice, I still retain an interest in the profession and I am working my way through the many appraisal examples that you have included, which I find most absorbing.

I must congratulate you on a splendid opus, which I am certain will be of huge assistance to both students and practitioners in India and around the world and, without doubt, will enhance standards within the profession."

THE **PRICE** OF THE BOOK AND **AVAILABILITY**

USD 95.00 +
packaging & forwarding

The book is available from author only by making an advance payment in the following bank account:

A/c. Holder: **Kirit P. Budhbhatti**
HDFC Bank Vallabh Vidyanagar
388120 Gujarat.
Savings A/c No.: 02271570003254
IFSC Code: HDFC0001244
Swift Code :HDFCINBBXXX

Contact Person:
R. Venkatraman – Mode of communication
Email and WhatsApp message only.

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kpbpublication@gmail.com
+91 93162 65157