

Game Theory in Management: Modeling Business Decisions and their Consequences

**By Michael Hatfield; published 2012 (193 pages) by Gower Publishing Limited, Way Court
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Book Review by Dr. Kenneth F. Smith, PMP®

Author & Target Audience: The author is an extensively experienced, professionally qualified and internationally recognized project management writer and practitioner. His target audience is the management community "writ large" – i.e. Strategic, Asset & Project Managers, and their many minions.

For quite a number of years I have been entertained by Michael Hatfield's gadfly attacks on the sacred cows of Project Management in his humorous, easy-to-read style -- but nevertheless pertinent and very lucid articles in the Project Management Institute's "PM Network." Thus, when I undertook to review this book, I anticipated a continuance of his iconoclastic approach in extended book form. Although not disappointed with either the thrust, findings or conclusions of his "Game Theory in Management," I confess my expectations were severely jolted by his change of style.

Instead of the light-hearted narrative to which I had become accustomed for him to make his points -- -- I encountered a studious philosophical, theoretical tome worthy of a Ph.D dissertation, albeit interspersed with insightful down-to-earth explanatory analogies from a wide variety of situations to buttress his assertions – a welcome addition for readers less acquainted with formal logic &/or less skilled in quantitative analysis.

Hatfield essentially classifies "Management" into three profoundly different types with entirely different objectives, although organizationally bound together:

- **Asset Management** – *to maximize shareholder wealth*
- **Project Management** – *to meet customers' expectations with respect to scope, cost and schedule -- and*
- **Strategic Management** -- *to deal with market share &/or where the organization stands with respect to its competition*

He then examines various game theories and strategies from the perspectives of predominant organizational players – the Gamesman, the Jungle Fighter, the Company Man and the Craftsman -- as well as protocols to apply them within the three management archetypes. His conclusion is that unlike classic strategy games – such as chess, as well as more modern business-oriented games for decision-making that follow prescribed rules with limited, scripted, options leading to pre-defined outcomes, there are no such constraints -- in the real world environment.

Due to the vast array of "black swans" – i.e. unknown variable risks -- and the inability to control them even if they were known *a priori*, the outcomes are unpredictable so employing game theory tactics is largely delusory and ineffectual. **Constructively, Hatfield posits a three-dimensional "Corner Cube" model to depict the eight stage interaction of these three different management objectives**, but only for descriptive -- not predictive -- purposes.

Continuing to examine the internecine warfare between management archetypes, Hatfield asserts that the indicators customarily utilized by the predominant Asset archetype to measure performance are not conducive to attaining other management objectives. As an example, Hatfield illustrates that Asset management's focus (i.e. to maximize Return on Investment) and reliance on data derived from time-phased budgets to measure performance is at odds with project management's aim to satisfy the customer; and indeed, during project implementation, is the wrong indicator of financial performance.

Instead, **Earned Value – which is of absolutely no value to Asset Management – is the project manager's key indicator.** Hence, different strokes for different folks! Thus, despite a common quest for the Holy Grail of management -- "**TAR (i.e. Timely, Accurate & Relevant information)**" – Hatfield reiterates that different indicators should be used for different objectives.

Not content with dismissing the application of game theory to predict outcomes at higher management levels, Hatfield also takes aim at the enemies within Project Management. Citing Risk Analysis and Quality Control practitioners in particular, he faults them for frequently misusing their data. Instead of confining themselves to retrospective analysis to reveal the lessons contained therein and/or concentrating on possible preventive action up front, by establishing contingencies -- with the Critical Path method for scheduling as the sole exception -- all too often these practitioners exceed the design capabilities and bounds of their statistical probability tools and analytical approaches, and purport to predict the future, and continuing intervening during implementation when they are unable to contribute little or nothing more to the outcome.

Finally Hatfield pans the definitions of the Project Management Institute in its "PMBOK® Guide" as being too vague, leading to boundary trespassing where nothing is excluded so the purported definitions are rendered meaningless.

To summarize the outcome:

- Although it can be applied retroactively to attempt to systematically "explain" outcomes, Game theory is not useful for either maximizing management strategy or forecasting.
- Similarly, Risk Analysis performs a limited function -- attempting to quantify schedule & budget planning, in order to establish contingencies and management reserves. Beyond that, there are too many "Black Swans" – i.e. "unknown-unknown" variables -- for Risk Analysis to be useful predicting future events. And if the contingencies it identifies are not

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- Likewise, Quality Control should be limited to products; when applied to human processes QC exceeds its bounds.

"Game Theory in Management" findings and conclusions are so contrary to generally accepted and applied management practice, it could be a prelude to a paradigm shift. However, I note that Hatfield first proffered his **Corner Cube** theory in 1995 – i.e. some eighteen years ago – so there has been no rush yet to adopt its tenets.

Logicians – *as opposed to "logisticians"* – will love this book! "Systematicians" (*is that a real word?!*) and assorted "*number-crunchers*" of the Project Management bent (of which I am one) should also love it if (like me) they plow through its tables, charts, logic notations & probability formulas to validate, then heed his conclusions -- instead of resisting them; or lamenting their "broken rice bowls" which he has succeeded in shattering.

Although it is not an easy read -- "*soft-science*" Strategic managers as well as "*bean-counting*" Asset managers and their ilk will also benefit immeasurably if they can stick to the analogies and conclusions contained therein while skimming the logical, analytical, and quantitative foundations on which Michael Hatfield's thesis is constructed.

Now go and read the rest of the story to understand why!

Editor's Note: Thanks Ken! Readers, if you would like to comment to Ken or to us about this review, please [contact us!](#)

Overall Rating: 4.0 (out of 5):  Dr. Kenneth F. Smith, PMP.