


The Frugal Paradigm


Developing a Conceptual Framework for Affordability-Driven Innovations

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Agenda



- Understanding “frugal innovations”
- Bibliometric analysis
- Core insights
- A framework for “frugal innovation”
- Summary / research outlook



What is “frugal”, what is “innovation”?



- “Frugal” is an adjective:
 - **Meaning:** economical in use or expenditure; prudently saving or sparing; not wasteful; entailing little expense; requiring few resources;
 - **Antonyms:** wasteful; extravagant; luxurious; lavish
 - **Synonyms:** Economical, thrifty, frugal all “imply careful and saving use of resources”, e.g. prudent planning in the disposition of resources so as to avoid unnecessary waste or expense

- Innovation is a noun, which signifies
 - “the implementation of a new or significantly improved product (good or service), or process, a new marketing method, or a new organizational method in business practices, workplace organization or external relations.” (OECD, 2007).



www.global-innovation.net

What "frugal innovation" is not!



"It will be a problem demolishing it, sir. Why not just put a board 'low cost housing complex' and leave it?"

By: R.K. Laxman
 (The Best of Laxman: The Common Man Watches Cricket, Penguin Books, 2000, p. 151)



Tracing the intellectual antecedents



Sl. No.	Year	Author	Title	Journal	Year	Volume	Type	Source
2	542	Frugal Toppet (1939)	Toppet, G.	The house holder or perfect man	51			Electronic Resou GVK Frugality
3	336	Frugal Macchanda (1939)	Macchanda, G.	The moral history of frugality with its opposite vices. - (metabusiness London. Printed for J. Hoopmann, at the Golden Ball over against the	1693			Electronic Resou GVK Frugality
4	537	Frugal Sower (1739)	Sower, J.	The way to be wise and wealthy, or, The excellency of industry and London. Printed and sold by J. Millard, 1739.	1739			Electronic Resou GVK Frugality
5	394	Frugal Veremagen in men (1738)	Veremagen in men	Veremagen in men, 1738.	1738			Electronic Resou GVK Frugality
6	4	Frugal Adams (1737)	Adams, W.	The duties of industry, frugality, and industry	(Sheffield, printed by J. Eddowes; and sold by S. BIRNIE, and T. CUL, 1737)			Book GVK Frugality
7	207	Frugal Gentleman of experience (1737)	Gentleman of experience	The gentleman: (Shewing in a variety of instances, from his infancy (London: printed for the author, and sold by J. Bell, 1737)	1737			Electronic Resou GVK Frugality
8	579	Frugal Woods (1735)	Woods, B.	The duty of frugality, and the sin of waste considered, with a new to London 1735	1735			Magazine GVK Frugality
9	543	Frugal Trenchard (1735)	Trenchard, C.	The way to be wise and wealthy, or, The excellency of industry and Dublin. Printed and sold by Isaac Jackson, 1735	1735			Electronic Resou GVK Frugality
10	52	Frugal Biddaph (1731)	Biddaph, T.T.	Reasonable hints to the poor, on the duties of frugality, industry, and to (London: printed by W. Pine and Son, and sold by Thomas Budge and 1731	1731			Electronic Resou GVK Frugality
11	197	Frugal Franklin (1732)	Franklin, B.	The way to wealth	London, printed by J. Dawsonport, and sold by C. Sheppard, 1732			Magazine GVK Frugality
12	398	Frugal Franklin (1807)	Franklin, B.	Maxims and morals from Dr. Franklin: being increments to industry, London: Printed by and for Carter and Harvey, 1807	1807			Electronic Resou GVK Frugality
13	A	Frugal Eklans (1937)	Eklans, P.M.	Essays on paper-money and banking, from Essays on the public debt: A series of collection of scarce and valuable tracts and other publications 1937				Journal GVK Frugality
14	A	Frugal von Raupar (1932)	von Raupar, F.A.	FACTS ON THE DEVELOPMENT OF THE DOCTRINE OF FRUGALITY Quarterly Journal of Economics, March, Vol. 47 Issue 1, p123-133 1932				Journal EBSCO Frugality
15	A	Frugal Faber (1948)	Faber, F.A.	LAUKERDALE'S OVERSAVING THEORY. American Economic Review, June, Vol. 38 Issue 3, p283-279.	1948			Journal

- Identification of 33 terms (synonyms) in 95 different variations (such as singular/plural, with or without hyphen)
 - "frugality", "frugal engineering", "Gandhian innovations"
- Not including "BOP" (Bottom of the Pyramid) literature
- Total >1050 hits in academic literature databases of Ebsco Host, GVK Plus and Google Scholar, as of June end 2013



Bibliometric analysis



- A total of 590 publications were identified, of which 68 were journal articles:
 - The earliest article was from von Hayek (1932) titled *A Note on the Development of the Doctrine of 'Forced Saving'* in the Quarterly Journal of Economics (47:1, 123-133).
 - Most articles (44) published since 2010. Also Google search results show similar results.
- The largest number of articles (19) was published in marketing and consumer research related journals, followed by journals on technology management (7), those focused on emerging markets (6), and psychology (6).
- A content analysis confirmed such a division in focus: While around 46% of the published papers dealt with consumption issues, about one-third dealt with it as an “innovation phenomenon” (technologies, implications for R&D etc.)



Supporting preliminary studies



Summarized Findings from 5 Cases



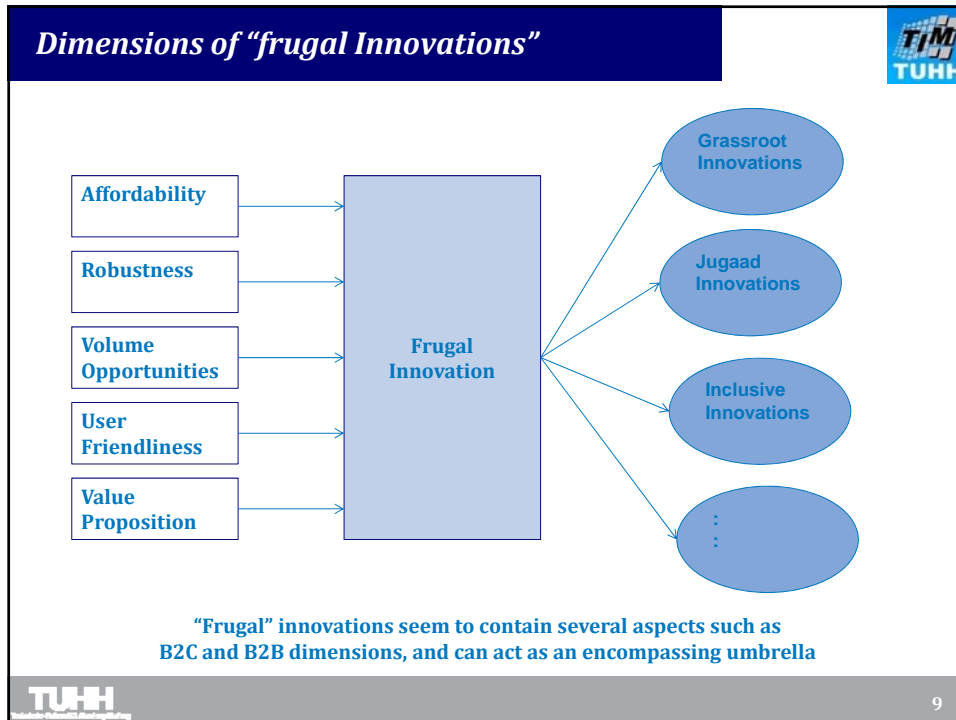
Common Features

- Importance of an attractive value proposition
- Need for robustness
- Emphasis on user friendliness
- Need to reduce the overall cost of ownership
- Potential for volume-based business

Selected Implications for propositions

- Solutions for problems “rooted in the present”
- High price sensitivity of the targeted customers
- Often absence of legacy systems → “product vacuum”
- Significant in-house R&D capabilities and access to cutting-edge knowledge at low cost
- Sophistication of solution not rooted in “the newest and most advanced technology” but in a “comfortable, robust, and affordable solution capable to uplift the standard of living to the next better level”





Core insights




- Frugal innovations seem to go much beyond the mere "low cost" approach targeted at end-consumers. These target the *price-sensitive* customer including in B2B areas.
- Quality perceptions and image concerns (value proposition) play a key role in the acceptance of frugal products.
- There is an increasing relevance of frugal products in the industrialized nations due to factors such as:
 - stagnant economic growth leading ,in some cases, even to recession,
 - the growing environmental concerns
 - ethical issues in reaction to (a perceived) materialism/consumerism practiced so far

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Summary & outlook



Proposing a definition

"Frugal innovations seek to minimize the use of material and financial resources in the complete value chain with the objective of substantially reducing the cost of ownership/usage of a product while fulfilling or even exceeding pre-defined criteria of *acceptable* quality standards."

Future research


- A co-citation analysis of the identified literature to identify the schools of thought that have shaped the scholarly discourse on frugal innovations.
 - Include literature on BOP in this analysis (?)
- Look into the demand for frugal products in industrialized nations and the possible differences in motives of consumers in accepting them, as well as at contextual similarities/dissimilarities to low-income consumers in developing nations.
- Implications for established firms (threat of cannibalizing own portfolio; long-term implications when consumers have higher purchasing power)



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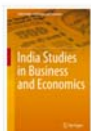
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"Aiming Big with Small Cars"

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Thank you for your attention!

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