

FRUGAL INNOVATIONS

Intervention logic of public funding programmes for frugal innovations

Kaisa Granqvist | Centre for Social Innovation

CONTEXT

OECD (2005) defines innovation as ‘the implementation of a new or significantly improved product (good or service) or process’. Frugal innovations refer to dramatically lower-cost products and processes, fulfilling or even exceeding pre-defined criteria of acceptable quality standards (Tiwari & Herstatt 2014). They turn challenges into advantages, sourcing from resource constraints, institutional voids, and specific needs of low income population. Therewith, the products and services become affordable and available to low income customers, either in low, middle or high-income countries, thus creating considerable social impacts (Bhatti 2012).

Frugal = economical, sparing, trifty

Innovation = new or improved product/service

OBJECTIVE

Frugal innovations have not only captured the attention of companies seeking for business opportunities but policy makers who seek to contribute to inclusive and environmentally continuous economic growth.

This study explores funding schemes stimulating frugal innovations, initiated by policy makers and public funding bodies. While the previous literature has focused on studying the qualities of frugal innovations (e.g. Bhatti 2012) or frugal innovation process at a firm level, this study looks at the public funding schemes for the support of frugal innovations from a programme perspective. I aim to shed light on the intervention logic of frugal innovation support schemes and explore how the request of frugality is manifested in it. This is because previous studies suggest that frugal innovation process is constitutively different than for “ordinary” R&D driven innovations or social innovations (Van Beers et. all 2014).

While frugal innovations have emerged in academic discussion in the last ten years (Prahalad 2012), this study seeks to make a theoretical contribution through exploring the frugal innovation process from the perspective of innovation funders.

METHODS

The study is based on desk research and interviews with public funding agencies. Internet based search was conducted in order to find public funding programmes stimulating frugal innovations. Semi-structured interviews were carried with 10 programme owners in April-May 2016.

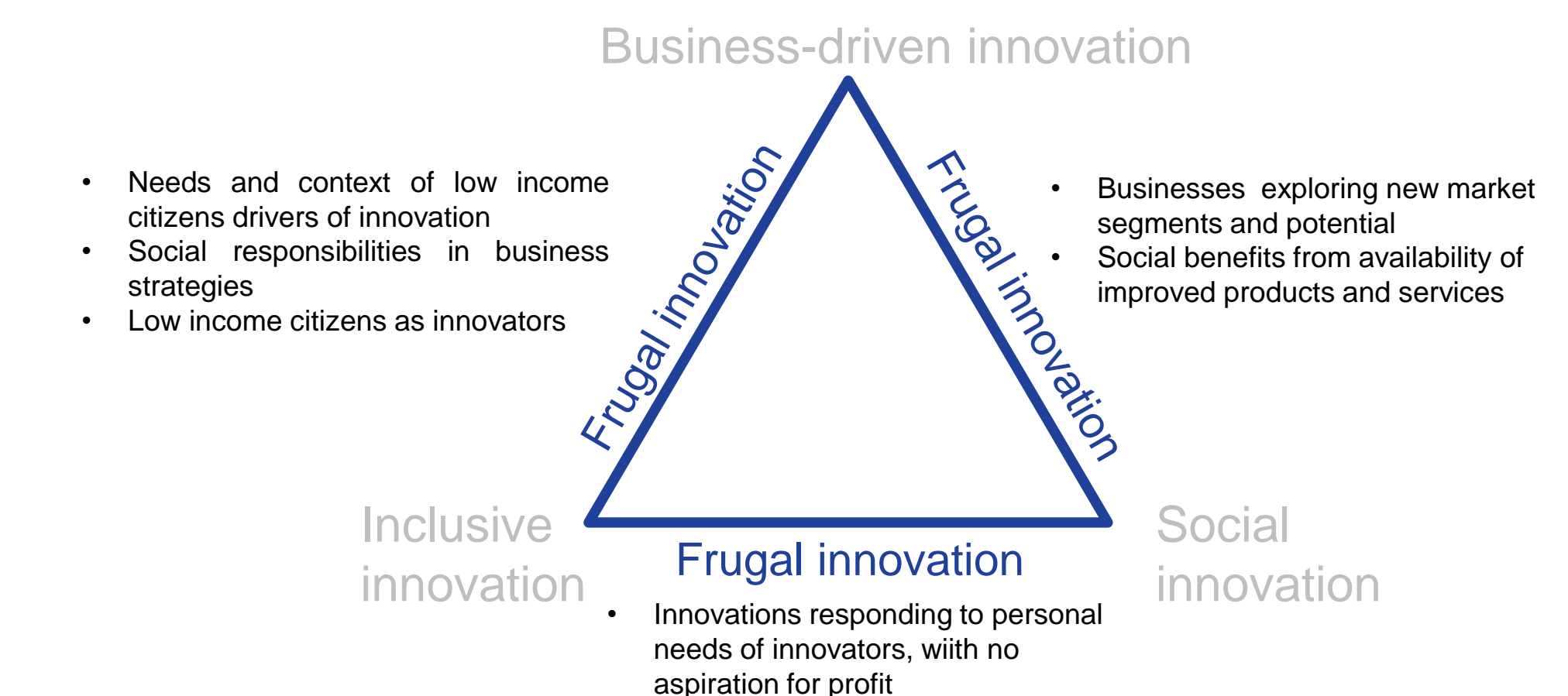
RESULTS

Frugal innovation draws from the qualities of business-driven, social and inclusive innovation. 15 public funding schemes for their stimulation were found in a global mapping. Based on their objectives and intervention logic, 3 types of schemes were found, which correspond to 3 frugal innovation types recognised.

Scheme	Objective								
	Grassroots innovator	Needs-based product/process	Marketable product/process	Affordable product/process	Addressing global dev challenge	Poverty Alleviation	Social impact	Inclusive growth	Green /Eco-Innovations
Honeybee Network and SRISTI	○	●	●	●		●	●	●	●
National Innovation Foundation	○	●	●	●		●	●	●	●
Grassroots Inno Augmentation Network	●	●	●	●		●	●	●	
SPARSH Programme		●	●	●	●		●		
INVENT Programme			●			●	●	●	
Newton Fund competitions		●	●		●	●	●		
Millennium Alliance			●		●	○	●	●	
TechEmerge		●	●	●	●		●		
Affordable Healthcare in India			●	●	●		●		
Tekes-India collaboration		●	●		●		●		
Industry-Academia R&D programme			●	○			○	●	
Development Innovation Ventures		●	●		●	●	●		
BEAM Programme		●	●	○	●		●		
Dutch Good Growth Fund		○	●		●		●		
Business Call to Action			●				●	●	

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Prahalad, C.K. (2012). Bottom of the Pyramid as a Source of Breakthrough Innovations. Journal of Product Innovation Management, 29 (1), 6-12.
Tiwari, R. & R. Herstatt, (2012). "India - a lead market for frugal innovations? Extending the lead market theory to emerging economies," Working Papers 67, Hamburg University of Technology (TUHH), Institute for Technology and Innovation Management.



	Support to tackling global challenges	Support to grassroots innovations	Support to frugal businesses
Target group	Civil Society	Businesses, Universities, Civil Society	Businesses, Universities
Input	Financing, Advisory services	Financing, Advisory services	Financing, Advisory services
Activities	Funding for basic, translational research and R&D, business support and networking, scaling through public sector	Scouting, documentation, technical scrutation, IPR support	Funding for translational research and R&D, information on target market and networking, access to private finance and advisory services
Outcomes	New Businesses, new products/services responding to global challenges, new unserved customers reached	Improved local knowledge, new products/services for local use	New products, services, businesses, increased turnover and return, new customers reached
Impacts	Global challenges tackled, employment, economic growth	Local employment, inclusive growth, traditional knowledge preserved	Employment, Economic Growth, Improved wellbeing

All three types of schemes acknowledge, that stimulating frugality requires: **awareness raising of frugal business/research opportunities; understanding the needs of the target group, and mechanisms to guide and monitor delivery of social impact and to bare above average risk.**