Frugal Innovation for Low-Income Markets

Position Paper

Frugal innovation is considered by many to be one of the key solutions that enables enterprises to access low-income markets in developing countries. However, the discourse on frugal innovation has painted a singularly product-centric picture of innovation by overemphasising the products' value propositions, designs and underpinning technologies. This position paper aims to dispel the myth that frugal innovation for low-income markets is solely rooted in the configuration of a product and its components. Rather, frugal innovation is said to involve the implementation of novel ideas across the whole architecture of a business model.

Introduction

Since Prof. C.K. Prahalad penned "The Fortune at the Bottom of the Pyramid" in 2002, the consensus has been that there is a growing market for products and services that serve low-income people. The question remains as to how these products should be designed, retailed and maintained, since consumers in low-income markets are just as aspirational and critical as their counterparts at the other end of the income spectrum. First attempts by multinationals have shown that customers are not interested in high-tech products at western prices. On the contrary, they want products that are affordable, robust and practical, and specifically crafted with their needs in mind. With this in mind, frugal innovation has been championed as the way to successfully capture opportunities present in low-income markets.

General Consensus

Frugal innovation responds to limitations in resources as well as to constraints in low-income markets by turning these challenges into market opportunities. By utilising fewer resources, or deploying them in creative ways, frugal innovation helps to create affordable products and services that deliver value to low-income consumers (Bound & Thornton, 2012). So far, the spotlight has primarily been placed on anecdotal evidence of frugal products, their technologies and the existing market opportunity (Winterhalter et al, 2014). As a result, frugal innovation is generally perceived by the public to be product-driven in nature. This is evident in the fact that the most widely recognised frugal innovations in mainstream media, such as the Tata Nano car, ChotuKool refrigerator or Nokia 1100 Torchlight phone, are the ones which leverage some form of innovation in the product offering itself.

A literature review on frugal innovation reveals a plethora of reports and articles, which explored the concept of frugal innovation at the product-level. This discourse positions frugal innovation as a reconfiguration of a product and its components, and emphasises the central role of manufacturing, engineering and R&D processes. Frugal characteristics such as affordability and user-friendliness are frequently attributed to product modifications such as the removal of superfluous or non-essential product features. In this manner, a substantial amount of extant literature evokes a strong product bias by perpetuating a technology-centric view of innovation. However, recent arguments have maintained that to frugally innovate is to look beyond the product itself (Bhatti, 2011).

Our Position

Ennovent has accelerated over 175 innovations for sustainability in low-income markets since 2008. A key takeaway from this experience has been that frugal innovations succeed when entrepreneurs are compelled to look beyond their value propositions (the products and services) and innovate in other functional areas of a business where competitors may not. Ennovent has found that a more holistic view of innovation for low-income markets is one that considers all the elements of a business model – which is a system through which an organisation creates, delivers, and captures value (Osterwalder, 2010). This is because business model innovation allows entrepreneurs to recalibrate their focus back to a systems-level where all the different components of a business and the complex relationships between them can be taken into account during the innovation process (Amit & Zott, 2010).

Although entrepreneurs may be inclined to make large capital outlays on R&D and manufacturing, they can avoid this myopia by employing tools such as Osterwalder's Business Model Canvas. The Canvas encourages entrepreneurs to consider all the building blocks of a business during the innovation process. It aids frugal innovation through the development of unique processes, structures and systems across eight additional business elements: Distribution Channels, Customer Segments and Relationships, Key Partnerships, Activities and Resources, Revenue Streams and Cost Structures (Osterwalder, 2010). It is worth noting that such business model innovation is less costly than technology centred innovation as it drives entrepreneurs to leverage the existing resources of the enterprise, its partners and its vendors to create value for customers (Bound & Thornton, 2012).

Consider innovation in the canvas element 'Revenue Streams'. When ascertaining how to generate revenue from low-income markets, entrepreneurs must account for affordability constraints including small household incomes and unsteady cash flows. These challenges can be addressed by incorporating innovative payment systems into the business model. The case of Simpa Networks, a distributed clean energy provider, is particularly poignant. Simpa Networks employs a trademarked Progressive Purchase model, which converts a portion of the consumer's energy expenditure into payment towards a solar home system. This model allows consumers to acquire solar home systems upfront for a small deposit, after which a series of usage-based payments are made, using mobile technology, which add towards the final purchase price of the energy asset. This flexible payment approach has been so successful that Simpa Networks has recently been able to raise $4 million in debt to electrify another 50,000+ households.

Innovations are often needed in Distribution Channels to respond to the institutional voids that are endemic to low-income markets. These voids have implications that extend far beyond the value proposition of the business model as they signify that the institutions that make up a market ecosystem are either missing or not functioning optimally. Low-income markets are notorious for the absence of basic distribution infrastructure such as transportation and storage networks. This has led to the emergence of innovative Channel strategies such as Village-Level Entrepreneur (VLE) distribution models, which involves micro-franchising with local people in a designated rural market to increase the reach and penetration of products and services. VLEs have proven to be a successful model for promotion, product trials, purchase and delivery, and after-sales support across the last mile (Centre for Development Finance, 2011).

Entrepreneurs may also factor Key Partnerships into the innovation process. Low-income consumers living in unbanked areas are unable to access financial credit due to the non-availability of reliable borrowing and lending facilities. Taking on the challenges associated with improving financial inclusion would require entrepreneurs to explore different avenues through which financial services can be made available to potential consumers in more convenient and affordable ways. One successfully tested alternative financing approach has been the implementation of partnerships between entrepreneurs and microfinance institutions. For instance, microfinance has demonstrated strong value to the off-grid renewable energy sector, where institutions such as SKS Microfinance and Aryavart Gramin have partnered with entrepreneurs to finance solar lanterns, cookstoves and home systems in millions of homes across South Asia.

Practical Insights

Ennovent, through its own Startup Services, has helped over 70 enterprises to successfully launch in low-income markets by carrying out tailored interventions across different areas of the business model. For instance, Ennovent has supported the acceleration of Barefoot Power, a solar power company creating affordable lighting and phone charging products for low-income markets. Since it invested in Barefoot in 2011, Ennovent has been supporting Barefoot to establish and grow its on-ground operations in India by implementing innovative strategies across its business model:

1. Channels: Barefoot is employing a village-level distribution model in several small towns and villages in India where they are working through micro-entrepreneurs to support the product demonstration, sale and after-sales service of their solar products range.
2. Key Partners: Barefoot has entered into a financial partnership with Kiva to provide its retail network with loans to buy supplies, setup stores, and sell its solar inventory to low-income consumers. Barefoot has also established distribution partnerships with rural distribution companies, non-profits, community groups, and faith-based organisations to penetrate target markets in India.
3. Revenue Streams: Barefoot is working with microfinance organisations such as Margdarshak and ESAF India to provide low-interest loans to its target consumers so it can accelerate the adoption of its solar energy products amongst poor communities.

Conclusion

Even though frugal innovation is a young phenomenon, the competition to successfully take frugal innovations to market is fierce. By the year 2030, businesses in the developed world can expect to make up to 70% of their profits in low-income markets (Roland Berger, 2013). Those who enter these markets successfully now will be the ones to benefit from this future billion-dollar market that is emerging across continents. Nevertheless, the real opportunities to innovate frugally will remain hidden in the business model if entrepreneurs stay fixated on the value proposition of their offering. The dimensions on which to frugally innovate call for ingenuity and resourcefulness beyond the traditional value proposition paradigm of product-driven innovation. In order to be successful, entrepreneurs must design and execute innovative ideas and strategies across the entire architecture of the business model.

About Ennovent

Ennovent is a global innovation company for low-income markets. We work with out clients, partners and community to jointly develop, fund and manage innovation solutions that create a sustainable impact and fair profits. These solutions discover, startup, finance and scale the best business innovations for sustainability in developing countries. Since 2008, Ennovent has accelerated over 250 innovations in 15 countries through 60+ solutions.

Sources

Amit, R. & Zott, C. (2010) *Business Model Innovation: Creating Value in Times of Change*
Bound, K. & Thornton, I. (2012) *Our Frugal Future: Lesson's From India's Innovation Systems*
Bhatti, Y.A. (2011) *Challenges of Frugal Innovation & Role of Business Models*
Centre for Development Finance (2011) *The Base of the Pyramid Distribution Challenges*
Osterwalder, A. (2010) *Business Model Generation*
Roland Berger (2013) *Frugal Products: Study Results*
Winterhalter, S., Zeschky, M.B., Gassmann, O. & Weiblen, T. (2014) *Business Models For Frugal Innovations*

Contacts

Peter Scheuch (Founder and Managing Director)
☎ +43 1 2365859-20
peter.scheuch@ennovent.com

Vipul Kumar (Director -Services)
☎ +91 9711163680
vipul.kumar@ennovent.com