



VALUE CREATION AND APPROPRIATION AMONG THE CONSTITUENTS OF BUSINESS ECOSYSTEMS

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Abstract

Firms have recognized the need for building networks that leverage resources not owned by a firm in order to create sustainable competitive advantage. Value appropriation is important for firm's growth and survival. Though value creation and value appropriation processes are interlinked, often times the two are not synchronized as the intervening players have seemingly divergent objectives. Each of the ecosystems is unique and offers key aspects for better understanding of relationships between ecosystems' actors and their environment. These ecosystems have evolved as entities of reasonable stature from very humble beginnings. All these ecosystems have created value by collaboration and the processes add value to all constituents.

Key Words: *Appropriation, Business Ecosystems, Value Creation, and Collaborative*

Introduction

The purpose of any business enterprise from a single firm's point of view is to create value. Firms have recognized the need for building networks that leverage resources not owned by a firm in order to create sustainable competitive advantage. Value appropriation is important for firm's growth and survival. Though value creation and value appropriation processes are interlinked, oftentimes the two are not synchronized as the intervening players have seemingly divergent objectives.

Businesses in the past, especially in traditional industries were self - reliant and inward looking with growth either through forward or backward integration. Firms believe in investing and creating their own assets. Size, volumes and scales of geographic distribution are the parameters that determine the strength of an organization in the market place. Today businesses are increasingly challenged by one or more of situations such as saturation in the markets, breakthroughs in technology that shake up the status quo, cheaper and better alternatives and demand for value addition from the members of the value chain.

The internet and developments in the field of information and communication technologies (ICTs) have made it possible to develop and operate systems that are transparent and seamless. Businesses are also evolving to become more creative, flexible and generating new knowledge and expertise in creating and delivering new products and services. While competition is the key element, collaboration, co-operation and co-evolution are considered as important factors for building long-term strategies for businesses.

Methodology

Among business ecosystems a few like AMUL, ITC e-Choupal, HUL-Project Shakti, Indian Film Industry, Lijjat Pappad, CAMPCO. Titan Industries and Tiruppur cluster Titan Industries Limited and Cluster Development at Tirupur have been purposively selected for the present study. These business ecosystems have been selected out of physical eco systems operating in India (as opposed to virtual systems). The cases have been selected to cover a reasonably wide spectrum - Cooperatives large and small; Corporate led eco systems ranging from "bottom of the pyramid SHGs " to Ecosystems that integrate artisans / craftsmen; empowerment through internet innovation; market innovation in distribution, Ecosystems that come together for a limited period of time (ephemeral); Village enterprise and large clusters. Thus the selection of these cases together constitute a variegated sample inasmuch as they span size, open vs. closed, rural to urban and vice versa, types of organizations and work in multiple product/service market spaces. Multiple case study method has been applied for the present research. Case study is a research method involving a proximal, in-depth, and detailed examination of a subject of study (the case), as well as its related contextual conditions.

Results and Discussion

Value Creation And Appropriation In Indian Business Eco System

For effective value sharing in the ecosystem there must be ways to share information / problems throughout the network, sustain value creation and balance value creation and sharing. Value sharing ways and methods vary depending on the ecosystem, however, as keystones focus on improving the overall health of the ecosystem (performance, robustness, sustainability). Efficient value sharing ways generally consist of robust platforms, easy-to-use, intellectual property licensing, shared operations, enabling software tools, and the like.



The distinct features emerge from this study are: Scale attainment through cooperative principles, which would have been difficult to imagine by individual farmers. The translation of scale to bargaining efficiency is obvious. This advantage devolves to participants as value. The second is cooperatives have embedded professional management structures and processes to handle marketing complexity. This symbiosis between professionalism and cooperative has helped create powerful brands.

Amul

In the Amul led cooperative, farmers get up to 80% of customer payout. This is, perhaps the highest for any agro based industry. The Amul movement has more than 3 million participants on one side and revenue stream of ~ Rs 20K crores from a slew of markets. It has nearly 50 sales offices spread all over the country, more than 5000 wholesale dealers and more than 700000 retailers. AMUL is also the largest exporter of dairy products in the country. AMUL is available today in over 40 countries of the world.

AMUL achieved a turnover of close to Rupees 20000 cores as of March 2014, which is a large in terms of size of revenue. Even MNCs face challenges to achieve this. AMUL has achieved consistent 23% cumulative average growth rate over the 6 years period ending March 2014. According to the Chairman of AMUL, "In fact, during the last four years, 59% increase in milk procurement price to our farmer-members has resulted in 46% growth in our milk procurement. By continuously offering most remunerative price for milk to our dairy farmers, we have incentivized them to enhance their investment towards increasing milk production". This clearly establishes value creation for customers as well as for producers and processors as well.

India's achievement is largely due to cooperative structure and value creation across supply network to smoothening demand and supply. AMUL and NDDB have constantly appropriated value equitably across supply network to achieve status of global leadership in dairy industry as evidenced by long term sustainable growth and diversification of products and markets.

The product range comprises milk, milk powder, health beverages, ghee, butter, cheese, Pizza cheese, Ice cream, Paneer, chocolates, and traditional Indian sweets. It operates through one of the largest such networks in India.

Adding 2300 new distributors between 2011 and 2014 improved the distribution reach. In order to increase the efficacy of coverage in rural and semi-urban markets, AMUL 'Hub and Spoke' model has expanded availability of Amul products to additional 3000 smaller towns through 160 Super Stockiest. In a major technological leap, AMUL information systems network is being extended forward to seamlessly integrate all distributors with the AMUL's SAP system.

Thus, AMUL has embarked on value creation continuously through expansion drive is to ensure maximum growth in milk procurement from its farmer members. Integral to Amul cooperative model is the fact that control of the entire value chain remains firmly in the hands of the farmers. Through supply-chain efficiency, it ensures that maximum share of consumer's rupee flows back to the farmers. Value-chain innovations leveraging on technology have also helped in enhancing milk production, with increasing use of milking machines at farm level as well as milk chilling plants, bulk milk coolers and automatic milk collection systems. It has taken sustained efforts to enhance productivity of milch animals through scientifically designed programmes such as Calf Rearing programme, Pure Breeding programme, Total Mixed Rations programme and Productivity Enhancement Programme.

The Amul Model of dairy development is a three-tiered structure with the dairy cooperative societies at the village level federated under a milk union at the district level and a federation of member unions at the state level. It clearly establishes more than five decades of dairy revolution through cooperatives led by AMUL and National Dairy Development Board establishes importance of appropriate value network recognizing role, responsibility, risk and reward of all players by the focal firm that has given competitive advantage to the country.

ITC e-choupal

In the case of ITC's e-chaupal, there are 6,500 e-Choupals in operation in 40,000 villages in 10 states, affecting around 4 million farmers. ITC plans to scale up to 20,000 e-Choupals by 2012 covering 100,000 villages in 15 states, servicing 15 million farmers. The e-chaupal initiative has augmented farm income by 20% with productivity increasing by 14 % to 29%.



HUL Project Shakti

In HUL's Shakti project, there is a conscious extension of market space in the rural area and a more appropriate marketing model has been created. Involvement of SHGs in the marketing organization has added value in three ways –new market, relatively lower cost sales strategy and creation of a socially inclusive model.

In 2013, the Company significantly increased the Shakti network by adding over 17,000 Shakti Entrepreneurs (Shaktiammas). Project Shakti now has over 65,000 Shakti Entrepreneurs. Over 50,000 Shaktimaans, the male members of the Shaktiamma family, who distribute products on bicycles to nearby villages, complement the Shaktiammas. Cumulatively, they cover over four million households in over 160,000 villages across India. HUL has introduced a mobile-based mini ERP (Enterprise Resource Planning) solution in the Shakti network.

Indian Film Industry

In the film industry a basic script gets enlivened through cinema. While the participants may be assured contractual value in a film, subsequent success leads to value capture by the distribution and screening agents. Success inevitably augments value potential of the actors and the director.

Lijjat Papad

In the case of Lijjat Papad, there are more than 45,000 member sisters with 62 branches across the country in 17 states. The venture started with Rs 80. Lijjat's annual sales increased from Rs 6,196 in 1959 to more than Rs 7.5 billion in 2013. Remuneration is the same for everyone, and profits and losses are shared equally among the member sisters, so there is no possibility of concentration of assets and wealth. Besides papad, Lijjat has also introduced other products, such as Sasa detergent and soap. However, papad has remained as its core identity product. Members of Lijjath, called sisters earn Rs 2,500 to Rs 3,500 a month for about six hours of work every day from home. Lijjat's becoming of a shining example as a business model based on the sound but otherwise considered an impractical Gandhian concept of Sarvodaya and trusteeship is an example by itself.

Campco

CAMPSCO has membership of 1.18 lakh farmers and 547 marketing societies with a total paid up share capital of 25.33 crores. In the first year of procurement, CAMPSCO started procurement through 5 centers only and for the past twenty years, it has been operating through more than 50 procuring centers across the states of Kerala and Karnataka. The CAMPSCO has also opened sales depots in almost all parts of the country. The sale has grown by almost 30-times in forty years of its operation. In a period of 30 years, the CAMPSCO has increased the profit level 10-times. The setting-up of CAMPSCO has resulted in an effective stabilization of areca nut market and has offered a highly reasonable price incentive to the areca nut-growers.

Titan Industries Limited

Titan Industries Ltd starting in 1984 has grown in size by March, 2015 to encompass 1,201 stores, with over 1.59 million sq. ft of retail space delivering a retail turnover in excess of Rs11, 770 crore. Titan attributes its rapid growth to exploration of new customer segments, introduction of innovative new products, and rapid growth of the retail network. This is backed by strong brands – both Titan and Tanishq are the most admired brands in their categories. In sum, it is seen a dominant market exploration strategy that is supported by a highly effective technology exploitation using a combination of internal and external sources. It is also seen that alongside product innovation, the company has innovated in its supply chain and manufacturing processes to meet market needs.

The second feature is the high ethical standards that have been set by Titan through integrating their supplies with artisans creating a uniquely responsible ecosystem. The linkage with an NGO viz., MYRADA adds reassurance to stakeholders. Connecting a powerful brand with a community of artisans creates value; the augmented value then becomes available for sharing.

Tiruppur Cluster

The Tiruppur cluster with business of Rs. 5000 crores has over 2500 knitting and stitching units, 600 dyeing/bleaching units and 400 engaged in printing works. This ecosystem has created value by bulk sourcing, cross learning, integrating across multiple steps of the value chain. This has been possible by structured value creation by different players and proper value appropriation among network partners in the business. Tiruppur is known for the cluster activity and mostly each activity of garment making is being carried out being outside units say. Knitting units, Dyeing & Bleaching Units, Fabric Printing, Garmenting, and Embroidery, Compacting and Calendaring and other ancillary units.

Another significant player who contributes for value creation is Tirupur Exporters' Association popularly known as TEA was set up in the year 1990. Currently TEA has 668 knitwear exporters as members and doing yeoman service to the exporters. These would be key exporters contributing to a substantial high share of total exports. A Tirupur export Knitwear Industrial Complex (TEKIC) has been created for manufacture of knitwear for export. Similarly, TEA LEMUIR Container terminals Private Limited has been set up to facilitate exports. Exporters in Tirupur are now completing the customs formalities in Tirupur itself and sending the goods in containers directly for shipment through all southern ports and Mumbai. NEW TIRUPUR AREA DEVELOPMENT CORPORATION LIMITED (NTADCL) is a Public Limited Company promoted by TEA jointly with the Government of Tamil Nadu, Government of India and Infrastructure Leasing and Financial Services Limited (IL & FS), Mumbai to supply water from Cauvery River – about 55 kms. from Tirupur for industrial and domestic use not only by the people of Tirupur but also those in more than 30 villages, en route the pipeline. The massive project also envisages underground sewerage system for Tirupur, collection, treatment and disposal of sewerage and solid waste.

NIFT – TEA KNITWEAR FASHION INSTITUTE is set up to cater to the manpower needs of knitwear industry and export business in all areas of designing, manufacturing, marketing and administration. Further to attract buyers from all parts of the world to the citadel of knitwear industry, TEA and AEPC constructed a Trade Fair Complex of international standards. Experts view that there is a substantial increase in export of autumn / winter wear from Tirupur is on account of these fairs.

NETAJI APPAREL PARK is a world-class production facility to face the competition and challenges emerging in the post quote-free regime. With state-of-art machinery and world-class infrastructure created with an investment of Rs.300/-Crores the park provide direct employment to more than 15,000/-persons. The park contribution for knitwear export turnover of Tirupur is about Rs.1500/- crores per annum. The concentration of capabilities has drawn attention and support from Government. This is one of the ways of value creation. The Key Players, Management Structure, Performance Dimensions and Value Creation of Business Eco System in India are presented in Table 1.1.

Table 1.1 Key Players, Management Structure, Performance Dimensions and Value Creation of Business Ecosystems in India

Name	Key Players	Management Structure	Performance Dimensions	Value Creation
AMUL	Farmers, Co-operative unions (GCMMF), Cattle feed manufacturers, Mobile veterinary hospitals, CFTRI, Distributors and retailers	AMUL – keystone GCMMF cooperative federation Professional Management overseen by Cooperative Milk processing plants Support through outsourced veterinary services, Cattle feed manufacture/	Size, Scale, Scope, number of members ~ 3 million milk producer members and >15,000 village societies. Sales of ~20 K Crores 80% of revenue goes to farmers “ Value for many; value for money”	Dairying that was unprofitable was made a profitable business. Emergence of value added products such as cheese, ice creams, butter etc. Brand built across the nation
ITC e-choupal	Farmers, ITC (corporation), Information Technology solution providers, Mobile telephone companies and service providers, the meteorological department and farm input companies	ITC is the keystone for the e-choupal All the other players gain mileage out of the initiative of the company and win	Disintermediation resulting in better gains to the farmers and better prices for the company Model rural engagement process Technology platform	Closeness to the farmer Conduit for consumer durables, goods, automotives and banking services
HUL Project Shakti	Shakti Ammas, Self help group women, nongovernmental	Hindustan Unilever Limited is the keystone	Expansion of markets- access to low potential, inaccessible rural markets In 2013, the Shakti network had over	Creation of women entrepreneurs with benefits on economic, social and

	organizations, banks (indirectly)		65,000 Shakti Entrepreneurs. The Shaktiammas are complemented by over 50,000 Shaktimaans, the male members of the Shaktiamma family, who distribute products on bicycles to nearby villages. Cumulatively, they cover over four million households in over 160,000 villages across India. Creation of expanded distributor and customer base at zero working capital Assured earnings in the range.	entrepreneurial fronts. Women entrepreneurs reinforce brand and image through “word of mouth” Rural Penetration
Indian Film Industry	Development Team, preproduction agencies, production Team, Post production team, Exhibitors, Distributors, Financiers, regulators and audiences	Highly Unorganized, Disputes settled out of court Central Board for Film Certification (CBFC) to certify the worthiness of a film exhibition Labor laws	Successful certification by CBFC Box office- revenue collections upon exhibition Distribution reach Status of participants	IP Via creation of entertainment. Music, talk shows, CD s etc Revenue Actors’ contract value increases with every success Theater’s have assured usage and revenue
Lijjat Papad	Supplies, Production and Administration by individual women only Dealers and retailers on the distribution front	Every individual woman is a co-owner Prompt payments to the women suppliers	Consistency in earnings by the women members Societal recognition Annual Turnover of ~ Rs.600 crores	Progression from uncooked food products to detergents and cooked food Strong Brand Cash sales hence better cash management
CAMPCO	CAMPCO as a co-operative comprising growers (both of areca nut and cocoa) and non member growers; Major manufacturers of chocolate such as AMUL, NESTLE etc. and CAMPCO with its own manufacturing unit Distribution centers owned by CAMPCO	CAMPCO is the keystone constituting members in the form of individuals and primary co-operatives	CAMPCO is the largest procurer of areca nut in the country, procurement being 15 percent of the total production. Continuous support prices provided for procurement of areca nut and cocoa. Increase in the number of members	Stable market for growers – mainly small and marginal farmers and absorption of price shocks. Advisory role for the growers Long history of successful performance Brand and goodwill CAMPCO
Titan Industries Limited	Titan shareholders, Lenders, Retailers, Designers’, Jewelers, Bullion merchants. Franchisees	TITAN	Strong marketing. High brand, Retail network, Designing capabilities Goldsmiths gain via volumes and continuous engagement, Upskilling via findings and components.	TSR for shareholders Share of enlarged volume and scope for goldsmiths. Designing competencies, Customers have trustworthy brands for all occasions, Emotive advertising benefits agencies and customers/ Retail offers employment
Tirupur Cluster	Design consultants, ICT service providers, managing and HR	Highly unorganized players	Consistent growth rate of 30 percent for over a decade and a half 5000 cr + , 2500 MSMEs	Cottage industry, small and medium enterprise creation



	consultants, accounting firms, tax consultants, training providers	The major exporters form keystones for the unorganized players Pollution control Board	Fast growing industrial city. Cluster scale advantages	Employment of unskilled labor Collectivized support services.
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Conclusion

Each of the ecosystems is unique and offers key aspects for better understanding of relationships between ecosystems' actors and their environment. These ecosystems have evolved as entities of reasonable stature from very humble beginnings. All these ecosystems have created value by collaboration and the processes add value to all constituents.

References

1. Adner, R., and Kapoor, R.,(2010), "Value Creation in Innovation Ecosystems: How The Structure of Technological Interdependence Affects Firm Performance in New Technology Generations" *Strategic Management Journal*, 31(3), pp. 306-333.
2. Brandenburger, A. M., and Stuart, H. W.,(1996), "Value-based Business Strategy", *Journal of Economics & Management Strategy*, 5(1),pp. 5-24.
3. <http://www.campco.org/about/>
4. Chesbrough, H. W., and Rosenbloom, R. S.,(2002), "The Role of the Business Model in Capturing Value from Innovation: Evidence from Xerox Corporation's Technology Spin-Off Companies", *Industrial and Corporate Change*, 11(3), pp. 529-555.
5. Christensen, C.M. and Rosenbloom, R.,(1995), "Explaining the Attacker's Advantage: Technological Paradigms, Organizational Dynamics and the Value Network", *Research Policy*, 24(2), pp.233-257.
6. Gossain, S. and Kandiah, G.,(1998),"Reinventing Value: The New Business Ecosystem", *Strategy & Leadership*, 26(5), pp. 28-33.
7. Hearn, G., and Pace, C.,(2006), "Value-Creating Ecologies: Understanding Next Generation Business Systems", *Foresight*, 8(1), pp.55-65.
8. <https://www.hul.co.in/sustainable-living/case-studies/enhancing-livelihoods-through-project-shakti.html>
9. Iansiti, M. and Levien, R., (2004), "The Keystone Advantage: What the New Dynamics of Business Ecosystems Mean for Strategy, Innovation, and Sustainability", *Harvard Business School Press*, London, p.225.
10. <http://www.itcportal.com/businesses/agri-business/e-choupal.aspx>
11. Peltoniemi, M.,(2004), "Cluster, Value Network and Business Ecosystem: Knowledge and Innovation Approach", Paper Presented at *Organisations, Innovation and Complexity: New Perspectives on the Knowledge Economy Conference*, September 9-10, in Manchester, UK.
12. <https://www.titan.co.in/community-initiatives>
13. Wang, E.t. and Wei, H.L.,(2007), "Inteorganizational Governance Value Creation: Coordinating for Information Visibility and Flexibility in Supply Chains", *Decision Sciences*, 38(4), pp. 647-674.
14. Xavier, M.J., Krishna, R. and Norm Borin,(2005), "An Integrated Model of Collaborative Value Creation for Strategic Innovation: The case of Retail Automation in India", *IMB Management Review*, 17(2), p. 32.